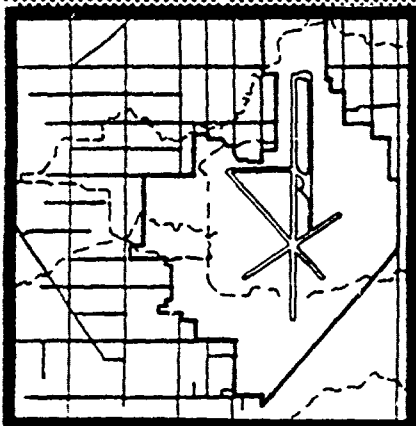


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**INSTALLATION RESTORATION PROGRAM (IRP)**

**Operable Unit B1  
Remedial Investigation/  
Feasibility Study (RI/FS)**

**for McCLELLAN AFB, CALIFORNIA**

**APPENDICES**

**FINAL**

**JULY 1993**

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JUL 21 1993  
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**PREPARED FOR:  
McCLELLAN AFB / EM  
McCLELLAN AFB, CALIFORNIA 95652-5990**

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**United States Air Force  
Air Force Center for Environmental Excellence  
Environmental Services Office  
Environmental Restoration Division (AFCEE/ESR)  
Brooks Air Force Base, Texas 78235-5000**

INSTALLATION RESTORATION PROGRAM (IRP)

OPERABLE UNIT B1  
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

APPENDICES

FINAL

DTIC QUALITY INSPECTED 3

FOR

McCLELLAN AFB/EM  
McCLELLAN AFB, CALIFORNIA 95652-5990

June 1993

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12a. DISTRIBUTION/AVAILABILITY STATEMENT Unclassified/Unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words)  This document presents the results from the remedial investigation and feasibility study for Operable Unit (OU) B1 at McClellan AFB, Sacramento, CA. Operable Unit B1 includes the Defence Reutilization and Marketing Office (DRMO) storage lot and Civil Engineering storage lot at McClellan AFB. The main chemicals of concern are PCBs, dioxins, and furans which may have leaked from transformers stored at OU B1 or were constituents of waste oil applied to soils to control dust.  Sections 1.0 through 4.0 of the report present results from the RI, the potential for contaminant migration/transport from OU B1 and the current and future risks associated with OU B1. The FS begins in Section 5.0 identifying the remedial action objectives, in Sections 6.0 and 7.0, technologies are screened and potential remedial alternatives are developed. The final six remedial alternatives are analyzed and compared to each other using the criteria established in the NCP in Section 8.0.				
14. SUBJECT TERMS Remedial Investigation (RI); Feasibility Study (FS)			15. NUMBER OF PAGES 352	
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17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	

**APPENDIX A**

**Remedial Investigation Data**



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1538	IC05MS153801N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.6300		0.2000	mg/kg
IC05S1539	IC05MS153901N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S1540	IC05MS154001N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	1.8000		0.2000	mg/kg
IC05S1541	IC05MS154101N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
IC05S1542	IC05MS154201N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.9800		0.2000	mg/kg
IC05S1543	IC05MS154301N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.7900		0.2000	mg/kg
IC05S1544	IC05MS154401N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.7300		0.2000	mg/kg
IC05S1545	IC05MS154501N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.6300		0.2000	mg/kg
IC05S1547	IC05MS154701N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.2400		0.2000	mg/kg
IC05S1548	IC05MS154801N	0.00	03/05/92	03/06/92	FPCB	PCB-1260	0.3400		0.2000	mg/kg
IC05S1781	IC05MS178101N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	2.3000		0.2000	mg/kg
IC05S1782	IC05MS178201N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	5.7000		0.2000	mg/kg
IC05S1783	IC05MS178301N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	4.6000		0.2000	mg/kg
IC05B021	IC05SB002101N	2.10 5.20	02/21/92 10/22/91	02/24/92 10/29/91	FVOC SW8270	m,p-Xylene Bis(2-ethylhexyl)phthalat e	0.0042 1.2000	Ø S,E	0.0030 0.5000	mg/kg MG/KG
IC05B022	IC05SB002204N	37.30	11/01/91	11/01/91 11/11/91	FVOC SW8240	Trichloroethene Methylene Chloride	0.0034 0.0110	Ø BØ	0.0020 0.0062	mg/kg mg/kg

## MCCLELLAN DUB RI SOIL RESULTS - DU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B022	IC05SB002205N	57.70	11/01/91	11/02/91 11/11/91	FVOC SW8240	Trichloroethene Methylene Chloride	0.0077 0.0110 B0	S E	0.0020 0.0067	mg/kg mg/kg
	IC05SB002220N	32.80	11/01/91	11/01/91	FVOC	Trichloroethene	0.0025 0	S,E	0.0020	mg/kg
	IC05SB002221N	34.80	11/01/91	11/01/91	FVOC	Trichloroethene	0.0030 0	S,E	0.0020	mg/kg
	IC05SB002222N	38.90	11/01/91	11/01/91	FVOC	Trichloroethene	0.0039 0	S,E	0.0020	mg/kg
	IC05SB002223N	39.80	11/01/91	11/01/91	FVOC	Trichloroethene	0.0043 0	S,E	0.0020	mg/kg
	IC05SB002224N	41.60	11/01/91	11/01/91	FVOC	Trichloroethene	0.0040 0	S,E	0.0020	mg/kg
	IC05SB002225N	44.90	11/01/91	11/01/91	FVOC	Trichloroethene	0.0049 0	S,E	0.0020	mg/kg
	IC05SB002226N	46.30	11/01/91	11/01/91	FVOC	Trichloroethene	0.0069	S	0.0020	mg/kg
	IC05SB002227N	51.40	11/01/91	11/01/91	FVOC	Trichloroethene	0.0039 0	S,E	0.0020	mg/kg
	IC05SB002228N	54.20	11/01/91	11/02/91	FVOC	Trichloroethane	0.0074	S	0.0020	mg/kg
	IC05SB002230N	64.80	11/04/91	11/04/91	FVOC	Trichloroethene	0.0020 0	S,E	0.0020	mg/kg
	IC05SB002231N	66.20	11/04/91	11/04/91	FVOC	Benzene Toluene m,p-Xylene	0.0026 0 0.0052 0 0.0032 0	S,E S,E S,E	0.0020 0.0050 0.0030	mg/kg mg/kg mg/kg
IC05SB002232N			11/11/91		SW8240	Methylene Chloride	0.0068 B0	E	0.0063	mg/kg
	IC05SB002232N	69.30	11/04/91	11/04/91	FVOC	Benzene Toluene m,p-Xylene o-Xylene	0.0029 0 0.0056 0 0.0036 0 0.0020 0	S,E S,E S,E S,E	0.0020 0.0050 0.0030 0.0020	mg/kg mg/kg mg/kg mg/kg
			11/11/91		SW8240	Methylene Chloride	0.0068 B0	E	0.0057	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BOXING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B022	IC05S8002234N	75.70	11/04/91	11/04/91	FVOC	Trichloroethene	0.0037 @	S, E	0.0020	mg/kg
	IC05S8002236N	80.70	11/04/91	11/04/91	FVOC	Trichloroethene	0.0074	S	0.0020	mg/kg
						cis-1,2-Dichloroethene	0.0034	S	0.0020	mg/kg
	IC05S8002239N	87.40	11/04/91	11/04/91	FVOC	Trichloroethene	0.0022 @	S, E	0.0020	mg/kg
	IC05S8002240N	89.10	11/04/91	11/04/91	FVOC	Trichloroethene	0.0031 @	S, E	0.0020	mg/kg
	IC05S8002242N	93.30	11/04/91	11/04/91	FVOC	Trichloroethene	0.0034 @	S, E	0.0020	mg/kg
IC05B031	IC05S8002243N	94.80	11/04/91	11/04/91	FVOC	Trichloroethene	0.0120	S	0.0020	mg/kg
						cis-1,2-Dichloroethene	0.0035	S	0.0020	mg/kg
					SW8240	Methylene Chloride	0.0100 B@	E	0.0055	mg/kg
	IC05S8003101N	1.00	04/01/92	04/06/92	FPCB	PCB-1260	16.0000		0.2000	mg/kg
	IC05S8003103N	3.00	04/01/92	04/06/92	FPCB	PCB-1260	1300.0000		0.2000	mg/kg
	IC05S8003104N	5.00	04/01/92	04/06/92	FPCB	PCB-1260	0.6800		0.2000	mg/kg
				04/09/92	SW6010	Aluminum	5800.0000	Z	4.1000	mg/kg
						Barium	89.0000		0.3600	mg/kg
						Beryllium	0.2200 @		0.0900	mg/kg
						Calcium	1100.0000		90.0000	mg/kg
						Chromium	16.0000		0.6300	mg/kg
						Cobalt	7.6000		0.6300	mg/kg
						Copper	6.9000		0.5400	mg/kg
						Iron	7700.0000		4.5000	mg/kg
						Lead	5.9000 @		4.5000	mg/kg
						Magnesium	1000.0000		2.7000	mg/kg
						Manganese	430.0000	E	0.1800	mg/kg
						Nickel	8.2000 @		1.8000	mg/kg
						Potassium	410.0000 @		270.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S031	IC05S003104N	5.00	04/01/92	04/09/92	SW6010	Sodium	110.0000	Ø	90.0000	mg/kg
						Vanadium	26.0000		0.7200	mg/kg
						Zinc	11.0000	Z	0.4500	mg/kg
	IC05S003111N	15.00	04/01/92	04/09/92	SW6010	Aluminum	5300.0000	Z	4.8000	mg/kg
						Barium	110.0000		0.4300	mg/kg
						Beryllium	0.2500	Ø	0.1100	mg/kg
						Calcium	1200.0000		110.0000	mg/kg
						Chromium	18.0000		0.7500	mg/kg
						Cobalt	9.8000		0.7500	mg/kg
						Copper	7.0000		0.6500	mg/kg
						Iron	9100.0000		5.4000	mg/kg
						Magnesium	1100.0000		3.2000	mg/kg
						Manganese	460.0000	E	0.2200	mg/kg
						Nickel	8.8000	Ø	2.2000	mg/kg
						Potassium	440.0000	Ø	320.0000	mg/kg
						Sodium	120.0000	Ø	110.0000	mg/kg
						Vanadium	31.0000		0.8600	mg/kg
						Zinc	12.0000	Z	0.5400	mg/kg
IC05S032	IC05S003201N	0.70	04/01/92	04/02/92	FPCB FVOC	PCB-1260	1100.0000		0.2000	mg/kg
						Benzene	0.0022	Ø	0.0020	mg/kg
						Unknown	0.1400	J	0.1000	mg/kg
	IC05S003202N	2.70	04/01/92	04/03/92	FPCB	PCB-1260	8800.0000		0.2000	mg/kg
	IC05S003203N	4.70	04/01/92	04/02/92 04/09/92	FPCB SW6010	PCB-1260	22.0000		0.2000	mg/kg
						Aluminum	5900.0000	Z	3.7000	mg/kg
						Barium	110.0000		0.3300	mg/kg
						Beryllium	0.2700	Ø	0.0820	mg/kg
						Calcium	1300.0000		82.0000	mg/kg
						Chromium	16.0000		0.5700	mg/kg
						Cobalt	7.6000		0.5700	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC058032	IC05S8003203N	4.70	04/01/92	04/09/92	SW6010	Copper	7.0000		0.4900	mg/kg
						Iron	7400.0000		4.1000	mg/kg
						Lead	6.2000	@	4.1000	mg/kg
						Magnesium	810.0000		2.5000	mg/kg
						Manganese	460.0000	E	0.1600	mg/kg
						Molybdenum	0.7900	Z@	0.6600	mg/kg
						Nickel	7.8000	@	1.6000	mg/kg
						Potassium	300.0000	@	250.0000	mg/kg
						Selenium	6.4000	@	6.1000	mg/kg
						Sodium	97.0000	@	82.0000	mg/kg
						Vanadium	27.0000		0.6600	mg/kg
						Zinc	10.0000	Z	0.4100	mg/kg
IC058032	IC05S8003204N	6.00	04/01/92	04/03/92	FPCB	PCB-1260	160.0000		0.2000	mg/kg
IC058032	IC05S8003208N	10.00	04/01/92	04/09/92	SW6010	Aluminum	14000.0000	Z	4.1000	mg/kg
						Barium	180.0000		0.3700	mg/kg
						Beryllium	0.3300	@	0.0920	mg/kg
						Calcium	3000.0000		92.0000	mg/kg
						Chromium	34.0000		0.6400	mg/kg
						Cobalt	8.4000		0.6400	mg/kg
						Copper	17.0000		0.5500	mg/kg
						Iron	22000.0000		4.6000	mg/kg
						Lead	11.0000	@	4.6000	mg/kg
						Magnesium	4900.0000		2.8000	mg/kg
						Manganese	220.0000	E	0.1800	mg/kg
						Nickel	37.0000		1.8000	mg/kg
						Potassium	2600.0000		280.0000	mg/kg
						Selenium	13.0000	@	6.9000	mg/kg
						Sodium	270.0000	@	92.0000	mg/kg
						Vanadium	39.0000		0.7300	mg/kg
						Zinc	32.0000	Z	0.4600	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B033	IC05SB003302N	3.20	04/02/92	04/03/92	FPCB SW6010	PCB-1260	0.2000		0.2000	mg/kg
						Aluminum	6400.0000	Z	4.0000	mg/kg
						Barium	92.0000		0.3600	mg/kg
						Beryllium	0.2700	Ø	0.0890	mg/kg
						Calcium	1600.0000		89.0000	mg/kg
						Chromium	36.0000		0.6300	mg/kg
						Cobalt	7.8000		0.6300	mg/kg
						Copper	17.0000		0.5400	mg/kg
						Iron	13000.0000		4.5000	mg/kg
						Lead	54.0000		4.5000	mg/kg
						Magnesium	1500.0000		2.7000	mg/kg
						Manganese	360.0000		0.1800	mg/kg
						Molybdenum	0.7400	ZØ	0.7100	mg/kg
						Nickel	14.0000		1.8000	mg/kg
						Potassium	670.0000	Ø	270.0000	mg/kg
						Selenium	7.1000	Ø	6.7000	mg/kg
						Sodium	190.0000	Ø	89.0000	mg/kg
						Vanadium	37.0000		0.7100	mg/kg
						Zinc	55.0000	Z	0.4500	mg/kg
IC05SB003308N	IC05SB003308N	10.00	04/02/92	04/09/92	SW6010	Aluminum	15000.0000	Z	4.9000	mg/kg
						Barium	130.0000		0.4300	mg/kg
						Beryllium	0.4300	Ø	0.1100	mg/kg
						Calcium	1900.0000		110.0000	mg/kg
						Chromium	41.0000		0.7600	mg/kg
						Cobalt	15.0000		0.7600	mg/kg
						Copper	16.0000		0.6500	mg/kg
						Iron	21000.0000		5.4000	mg/kg
						Lead	13.0000	Ø	5.4000	mg/kg
						Magnesium	4000.0000		3.3000	mg/kg
						Manganese	220.0000		0.2200	mg/kg
						Nickel	39.0000	E	2.2000	mg/kg
						Potassium	1900.0000		330.0000	mg/kg

## MCCLELLAN DUB R1 SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B033	IC05S8003308N	10.00	04/02/92	04/09/92	SW6010	Selenium	10.0000	Ø	8.2000	mg/kg
						Sodium	360.0000	Ø	110.0000	mg/kg
						Vanadium	55.0000		0.8700	mg/kg
						Zinc	27.0000	Z	0.5400	mg/kg
IC05B034	IC05S8003402N	2.60	04/02/92	04/03/92	FPCB	PCB-1260	0.3400		0.2000	mg/kg
IC05B036	IC05S8003601N	1.00	04/02/92	04/10/92	SW8270	Bis(2-ethylhexyl)phthalat e	0.8100		0.4000	MG/KG
IC05B040	IC05S8004001N	1.60	07/06/92	07/27/92	SW6010	Aluminum	11000.0000		3.9000	mg/kg
						Arsenic	6.4000	Ø	4.6000	mg/kg
						Barium	76.0000		0.3400	mg/kg
						Beryllium	0.2200	Ø	0.0860	mg/kg
						Calcium	1500.0000		86.0000	mg/kg
						Chromium	21.0000		0.6000	mg/kg
						Cobalt	8.2000		0.6000	mg/kg
						Copper	10.0000		0.5200	mg/kg
						Iron	13000.0000		4.3000	mg/kg
						Lead	5.5000	Ø	4.3000	mg/kg
						Magnesium	1300.0000		2.6000	mg/kg
						Manganese	420.0000		0.1700	mg/kg
						Nickel	12.0000		1.7000	mg/kg
						Potassium	550.0000	Ø	260.0000	mg/kg
						Selenium	8.4000	Ø	6.5000	mg/kg
						Vanadium	43.0000		0.6900	mg/kg
						Zinc	18.0000		0.4300	mg/kg
IC05S8004002N		13.20	07/06/92	07/19/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	21.0000		13.0000	MG/KG
				07/27/92	SW6010	Aluminum	30000.0000		4.5000	mg/kg
						Antimony	4.3000	Ø	3.5000	mg/kg
						Arsenic	13.0000	Ø	5.4000	mg/kg

## MCCLELLAN DUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B040	IC05S8004002N	13.20	07/06/92	07/27/92	SW6010	Barium	260.0000		0.4000	mg/kg
						Beryllium	0.4500	Ø	0.1000	mg/kg
						Calcium	6200.0000		100.0000	mg/kg
						Chromium	47.0000		0.7100	mg/kg
						Cobalt	20.0000		0.7100	mg/kg
						Copper	39.0000		0.6100	mg/kg
						Iron	36000.0000		5.1000	mg/kg
						Lead	14.0000	Ø	5.1000	mg/kg
						Magnesium	9600.0000		3.0000	mg/kg
						Manganese	420.0000		0.2000	mg/kg
						Nickel	46.0000		2.0000	mg/kg
						Potassium	3700.0000		300.0000	mg/kg
						Sodium	650.0000		100.0000	mg/kg
						Vanadium	66.0000		0.8100	mg/kg
						Zinc	70.0000		0.5100	mg/kg
IC05B041	IC05S8004003N	20.00	07/07/92	07/07/92	FV0C	o-Xylene	0.0026	Ø	0.0020	mg/kg
						Total Petroleum Hydrocarbons (by extraction)	14.0000		12.0000	Mg/KG
						Aluminum	23000.0000		4.1000	mg/kg
						Barium	300.0000		0.3600	mg/kg
						Beryllium	0.3400	Ø	0.0910	mg/kg
						Calcium	41000.0000		91.0000	mg/kg
						Chromium	52.0000		0.6400	mg/kg
						Cobalt	25.0000		0.6400	mg/kg
						Copper	22.0000		0.5300	mg/kg
						Iron	24000.0000		4.5000	mg/kg
						Magnesium	7300.0000		2.7000	mg/kg
						Manganese	380.0000		0.1800	mg/kg
						Molybdenum	1.4000	Ø	0.7300	mg/kg
						Nickel	53.0000		1.8000	mg/kg
						Potassium	840.0000	Ø	270.0000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B041	IC05SB004101N	4.10	07/07/92	07/28/92	SW6010	Selenium	22.0000		6.8000	mg/kg
						Sodium	360.0000		91.0000	mg/kg
						Vanadium	45.0000		0.7300	mg/kg
						Zinc	39.0000		0.4500	mg/kg
	IC05SB004102N	8.70	07/07/92	07/28/92	SW6010	Aluminum	15000.0000		3.7000	mg/kg
						Barium	110.0000		0.3300	mg/kg
						Beryllium	0.1200		0.0830	mg/kg
						Calcium	5400.0000		83.0000	mg/kg
						Chromium	23.0000		0.5800	mg/kg
						Cobalt	8.8000		0.5800	mg/kg
						Copper	19.0000		0.5000	mg/kg
						Iron	18000.0000		4.1000	mg/kg
						Lead	5.1000		4.1000	mg/kg
						Magnesium	4800.0000		2.5000	mg/kg
						Manganese	180.0000		0.1700	mg/kg
						Molybdenum	0.8600		0.6600	mg/kg
IC05B042	IC05SB004201N	8.40	07/07/92	07/28/92	SW6010	Nickel	21.0000		1.7000	mg/kg
						Potassium	1200.0000		250.0000	mg/kg
						Selenium	22.0000		6.2000	mg/kg
						Sodium	640.0000		83.0000	mg/kg
						Vanadium	58.0000		0.6600	mg/kg
						Zinc	33.0000		0.4100	mg/kg
						Aluminum	33000.0000		4.1000	mg/kg
						Barium	180.0000		0.3600	mg/kg
						Beryllium	0.5100		0.0900	mg/kg
						Calcium	8800.0000		90.0000	mg/kg
						Chromium	66.0000		0.6300	mg/kg
						Cobalt	12.0000		0.6300	mg/kg
						Copper	23.0000		0.5400	mg/kg
						Iron	26000.0000		4.5000	mg/kg
						Lead	8.3000		4.5000	mg/kg

## McCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B042	IC05S8004201N	8.40	07/07/92	07/28/92	SW6010	Magnesium	6900.0000		2.7000	mg/kg
						Manganese	180.0000		0.1800	mg/kg
						Molybdenum	1.4000	0	0.7200	mg/kg
						Nickel	61.0000		1.8000	mg/kg
						Potassium	1900.0000		270.0000	mg/kg
						Selenium	18.0000	0	6.8000	mg/kg
						Sodium	300.0000	0	90.0000	mg/kg
						Vanadium	58.0000		0.7200	mg/kg
						Zinc	120.0000		0.4500	mg/kg
						Aluminum	15000.0000		4.1000	mg/kg
						Barium	100.0000		0.3600	mg/kg
						Beryllium	0.1600	0	0.0910	mg/kg
						Calcium	3500.0000		91.0000	mg/kg
IC05B047	IC05S8004202N	12.80	07/07/92	07/28/92	SW6010	Chromium	34.0000		0.6400	mg/kg
						Cobalt	11.0000		0.6400	mg/kg
						Copper	19.0000		0.5500	mg/kg
						Iron	20000.0000		4.5000	mg/kg
						Lead	5.8000	0	4.5000	mg/kg
						Magnesium	6200.0000		2.7000	mg/kg
						Manganese	210.0000		0.1800	mg/kg
						Molybdenum	1.6000	0	0.7300	mg/kg
						Nickel	50.0000		1.8000	mg/kg
						Potassium	1800.0000		270.0000	mg/kg
						Selenium	15.0000	0	6.8000	mg/kg
						Sodium	400.0000	0	91.0000	mg/kg
						Vanadium	56.0000		0.7300	mg/kg
IC05B047	IC05S8004703N	9.80	11/16/92	12/03/92	SW6010	Zinc	34.0000		0.4500	mg/kg
						Aluminum	16000.0000		4.1000	mg/kg
						Antimony	4.5000	0	3.2000	mg/kg
						Barium	190.0000		0.3600	mg/kg
IC05B047	IC05S8004703N	9.80	11/16/92	12/03/92	SW6010	Beryllium	0.2900	0	0.0900	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
1C05B0047	1C05SB004703N	9.80	11/16/92	12/03/92	SW6010	Cadmium	0.5500	0	0.3600	mg/kg
						Calcium	4600.0000		90.0000	mg/kg
						Chromium	29.0000		0.6300	mg/kg
						Cobalt	11.0000		0.6300	mg/kg
						Copper	25.0000		0.5400	mg/kg
						Iron	20000.0000		4.5000	mg/kg
						Lead	8.0000	0	4.5000	mg/kg
						Magnesium	5800.0000		2.7000	mg/kg
						Manganese	230.0000		0.1800	mg/kg
						Nickel	30.0000		1.8000	mg/kg
						Potassium	1800.0000		90.9000	mg/kg
						Silver	1.9000	0	0.6300	mg/kg
						Sodium	560.0000		90.0000	mg/kg
						Thallium	5.2000	0	4.6000	mg/kg
						Vanadium	57.0000		0.7200	mg/kg
						Zinc	43.0000		0.4500	mg/kg
						Arsenic	2.5000		0.3600	mg/kg
						Lead	8.0000		0.5400	mg/kg
	1C05SB004704N	19.80	11/16/92	12/03/92	SW6010	Aluminum	7300.0000		3.7000	mg/kg
						Antimony	3.0000	0	2.9000	mg/kg
						Barium	58.0000		0.3300	mg/kg
						Beryllium	0.1400	0	0.0830	mg/kg
						Cadmium	0.4700	0	0.3300	mg/kg
						Calcium	2900.0000		83.0000	mg/kg
						Chromium	13.0000		0.5800	mg/kg
						Cobalt	5.4000		0.5800	mg/kg
						Copper	12.0000		0.5000	mg/kg
						Iron	13000.0000		4.1000	mg/kg
						Magnesium	2400.0000		2.5000	mg/kg
						Manganese	140.0000		0.1700	mg/kg
						Nickel	8.9000		1.7000	mg/kg
						Potassium	980.0000		83.0000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU BI

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC0580048	IC058B004803N	19.80	11/13/92	12/03/92	SW6010	Aluminum	12000.0000		3.7000	mg/kg
						Antimony	3.8000	Z0	2.9000	mg/kg
						Barium	80.0000		0.3300	mg/kg
						Beryllium	0.1900	0	0.0830	mg/kg
						Cadmium	0.7700	0	0.3300	mg/kg
						Calcium	4000.0000		83.0000	mg/kg
						Chromium	15.0000		0.5800	mg/kg
						Cobalt	7.7000		0.5800	mg/kg
						Copper	16.0000		0.5000	mg/kg
						Iron	16000.0000		4.2000	mg/kg
						Magnesium	3200.0000		2.5000	mg/kg
						Manganese	190.0000		0.1700	mg/kg
						Nickel	14.0000		1.7000	mg/kg
						Potassium	1300.0000		83.0000	mg/kg
						Selenium	8.4000	0	6.2000	mg/kg
						Silver	1.4000	0	0.5800	mg/kg
						Sodium	560.0000		83.0000	mg/kg
						Vanadium	46.0000		0.6700	mg/kg
						Zinc	34.0000		0.4200	mg/kg
						Arsenic	1.4000	0	0.3100	mg/kg
IC0580049	IC058B004902N	10.00	11/12/92	12/01/92	SW7060	Lead	4.3000		0.2300	mg/kg
						Selenium	3.5000		0.5400	mg/kg
				11/30/92	SW7421					
				12/03/92	SW7740	Aluminum	25000.0000		4.4000	mg/kg
						Antimony	4.8000	Z0	3.4000	mg/kg
						Barium	180.0000		0.3900	mg/kg
						Beryllium	0.5000		0.0970	mg/kg
						Cadmium	0.8200	0	0.3900	mg/kg
						Calcium	3100.0000		97.0000	mg/kg
						Chromium	51.0000		0.6800	mg/kg
						Cobalt	17.0000		0.6800	mg/kg
						Copper	24.0000		0.5800	mg/kg
						Iron	31000.0000		4.9000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC0580049	IC05S8004903N	19.80	11/12/92	12/03/92	SW6010	Sodium	590.0000		80.0000	mg/kg
						Thallium	9.1000	@	4.1000	mg/kg
						Vanadium	57.0000		0.6400	mg/kg
						Zinc	61.0000		0.4000	mg/kg
						Arsenic	2.1000		0.3200	mg/kg
						Lead	7.7000		0.4800	mg/kg
IC0580050	IC05S8005001N	2.90	11/11/92	11/15/92	SW8010	Selenium	3.2000		0.4000	mg/kg
						Tetrachloroethene	0.0160	C	0.0021	mg/kg
						Aluminum	23000.0000		4.2000	mg/kg
						Antimony	8.4000	Z@	3.2000	mg/kg
						Barium	190.0000		0.3700	mg/kg
						Beryllium	0.5200		0.0930	mg/kg
						Cadmium	1.1000	@	0.3700	mg/kg
						Calcium	3200.0000		93.0000	mg/kg
						Chromium	50.0000		0.6500	mg/kg
						Cobalt	12.0000		0.6500	mg/kg
						Copper	19.0000		0.5600	mg/kg
						Iron	28000.0000		4.6000	mg/kg
						Lead	13.0000	@	4.6000	mg/kg
						Magnesium	6400.0000		2.8000	mg/kg
						Manganese	210.0000		0.1900	mg/kg
						Nickel	50.0000		1.9000	mg/kg
						Potassium	2200.0000		93.0000	mg/kg
						Selenium	11.0000	@	6.9000	mg/kg
						Silver	3.0000	@	0.6500	mg/kg
						Sodium	450.0000	@	93.0000	mg/kg
IC0580050	IC05S8005002N	10.00	11/11/92	12/02/92	SW6010	Vanadium	49.0000		0.7400	mg/kg
						Zinc	31.0000		0.4600	mg/kg
						Arsenic	3.7000		0.3700	mg/kg
						Lead	9.5000		0.5500	mg/kg
						Selenium	3.8000		0.4600	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05SH0050	IC05SH005004N	30.00	11/11/92	12/02/92	SW6010	Aluminum	23000.0000		4.1000	mg/kg
						Antimony	7.5000	Z0	3.2000	mg/kg
						Barium	180.0000		0.3700	mg/kg
						Beryllium	0.4400	0	0.0920	mg/kg
						Cadmium	0.6700	0	0.3700	mg/kg
						Calcium	5600.0000		92.0000	mg/kg
						Chromium	24.0000		0.6400	mg/kg
						Cobalt	13.0000		0.6400	mg/kg
						Copper	32.0000		0.5500	mg/kg
						Iron	26000.0000		4.6000	mg/kg
						Lead	13.0000	0	4.6000	mg/kg
						Magnesium	7300.0000		2.8000	mg/kg
						Manganese	350.0000		0.1800	mg/kg
						Molybdenum	1.1000	0	0.7300	mg/kg
						Nickel	25.0000		1.8000	mg/kg
						Potassium	3200.0000		92.0000	mg/kg
						Selenium	14.0000	0	6.9000	mg/kg
						Silver	2.7000	0	0.6400	mg/kg
						Sodium	720.0000	E	0.0000	mg/kg
IC05H0007	IC05SH000701N	0.80	03/04/92	03/04/92	FV0C	Thallium	5.4000	0	4.7000	mg/kg
						Vanadium	58.0000		0.7300	mg/kg
						Zinc	69.0000		0.4600	mg/kg
						11/25/92			0.3700	mg/kg
						SW7060 Arsenic	4.3000		0.5500	mg/kg
						SW7421 Lead	8.2000		0.4600	mg/kg
						12/01/92			6.3000	ug/kg
						SW7740 Selenium	4.0000			
						11/30/92				
						SW8240 Methylene Chloride	18.0000	0		
IC05H0008	IC05SH000801N	0.80	03/04/92	03/05/92	FV0C	Unknown	0.1400	J	0.1000	mg/kg
						Unknown	0.2100	J	0.1000	mg/kg
						Unknown	0.1600	J	0.1000	mg/kg
IC05H0009	IC05SH000901N	0.80	03/04/92	03/05/92	FV0C	Unknown	0.1600	J	0.1000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0010	IC05SH001001N	0.80	03/04/92	03/05/92	FVOC	Unknown	0.2100	J	0.1000	mg/kg
IC05H0011	IC05SH001101N	0.80	03/04/92	03/05/92	FVOC	Unknown	0.2600	J	0.1000	mg/kg
IC05H0012	IC05SH001201N	0.80	03/04/92	03/04/92	FVOC	Unknown	0.2000	J	0.1000	mg/kg
IC05H022	IC05SH002201N	0.25	08/14/92	09/17/92	SW6010	Aluminum	12000.0000			3.4000 mg/kg
						Barium	130.0000			0.3000 mg/kg
						Beryllium	0.2500	Q		0.0750 mg/kg
						Cadmium	1.4000	Q		0.3000 mg/kg
						Calcium	2200.0000			75.0000 mg/kg
						Chromium	28.0000			0.5000 mg/kg
						Cobalt	8.4000			0.5200 mg/kg
						Copper	14.0000			0.4500 mg/kg
						Iron	13000.0000			3.7000 mg/kg
						Lead	24.0000			3.7000 mg/kg
						Magnesium	2300.0000	Z		2.2000 mg/kg
						Manganese	220.0000			0.1500 mg/kg
						Nickel	21.0000			1.5000 mg/kg
						Potassium	650.0000	Q		220.0000 mg/kg
						Sodium	130.0000	Q		75.0000 mg/kg
						Vanadium	35.0000			0.6000 mg/kg
						Zinc	64.0000	Z		0.3700 mg/kg
			09/02/92		SW8080	PCB-1260	0.6500			0.0300 MG/KG
						Total PCB	0.6500			0.0300 MG/KG
						Benzene	0.0021	Q		0.0020 mg/kg
			08/18/92		FVOC	Aluminum	21000.0000			3.7000 mg/kg
			09/17/92		SW6010	Barium	290.0000			0.3300 mg/kg
						Beryllium	0.4800			0.0830 mg/kg
						Cadmium	0.6200	Q		0.3300 mg/kg
						Calcium	4800.0000			83.0000 mg/kg
						Chromium	52.0000			0.5800 mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H023	IC05SH002302N	4.50	08/14/92	09/17/92	SW6010	Aluminum	24000.0000		3.9000	mg/kg
						Barium	930.0000		0.3500	mg/kg
						Beryllium	0.5600		0.0880	mg/kg
						Calcium	5500.0000		88.0000	mg/kg
						Chromium	58.0000		0.6100	mg/kg
						Cobalt	20.0000		0.6100	mg/kg
						Copper	33.0000		0.5300	mg/kg
						Iron	28000.0000		4.4000	mg/kg
						Lead	6.2000	Ø	4.4000	mg/kg
						Magnesium	7200.0000	Z	2.6000	mg/kg
						Manganese	490.0000		0.1800	mg/kg
						Nickel	72.0000		1.8000	mg/kg
						Potassium	1400.0000		260.0000	mg/kg
						Sodium	420.0000	Ø	88.0000	mg/kg
						Vanadium	57.0000		0.7000	mg/kg
						Zinc	54.0000	Z	0.4400	mg/kg
IC05H024	IC05SH002401N	0.25	08/14/92	09/17/92	SW6010	Aluminum	14000.0000		3.2000	mg/kg
						Barium	130.0000		0.2900	mg/kg
						Beryllium	0.3300	Ø	0.0720	mg/kg
						Cadmium	0.6900	Ø	0.2900	mg/kg
						Calcium	4600.0000		72.0000	mg/kg
						Chromium	52.0000		0.5000	mg/kg
						Cobalt	12.0000		0.5000	mg/kg
						Copper	28.0000		0.4300	mg/kg
						Iron	20000.0000		3.6000	mg/kg
						Lead	24.0000		3.6000	mg/kg
						Magnesium	5700.0000	Z	2.2000	mg/kg
						Manganese	410.0000		0.1400	mg/kg
						Molybdenum	0.9900	Ø	0.5800	mg/kg
						Nickel	44.0000		1.4000	mg/kg
						Potassium	1800.0000		220.0000	mg/kg
						Sodium	280.0000	Ø	72.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H024	IC05SH002401N	0.25	08/14/92	09/17/92	SW6010	Vanadium	48.0000		0.5800	mg/kg
						Zinc	69.0000	Z	0.3600	mg/kg
						PCB-1260	0.3100		0.0300	MG/KG
						Total PCB	0.3100		0.0300	MG/KG
				08/27/92	SW8270	Bis(2-ethylhexyl)phthalate	1.5000		0.4000	MG/KG
IC05H025	IC05SH002501N	3.00	08/14/92	09/17/92	SW6010	Aluminum	9200.0000		3.2000	mg/kg
						Barium	34.0000		0.2800	mg/kg
						Beryllium	0.2400	Ø	0.0710	mg/kg
						Cadmium	0.4700	Ø	0.2800	mg/kg
						Calcium	1900.0000		71.0000	mg/kg
						Chromium	34.0000		0.5000	mg/kg
						Cobalt	8.4000		0.5000	mg/kg
						Copper	16.0000		0.4300	mg/kg
						Iron	14000.0000		3.5000	mg/kg
						Lead	22.0000		3.5000	mg/kg
						Magnesium	2400.0000	Z	2.1000	mg/kg
						Manganese	290.0000		0.1400	mg/kg
						Nickel	17.0000		1.4000	mg/kg
						Potassium	740.0000	Ø	210.0000	mg/kg
						Sodium	140.0000	Ø	71.0000	mg/kg
						Vanadium	38.0000		0.5700	mg/kg
						Zinc	43.0000	Z	0.3500	mg/kg
						Aluminum	18000.0000		3.0000	mg/kg
						Barium	150.0000		0.2700	mg/kg
						Beryllium	0.3900		0.0680	mg/kg
						Cadmium	0.6500	Ø	0.2700	mg/kg
						Calcium	5400.0000		68.0000	mg/kg
						Chromium	74.0000		0.4700	mg/kg
						Cobalt	15.0000		0.4700	mg/kg
						Copper	34.0000		0.4100	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS	
IC05H025	IC05SH002501N	0.25	08/14/92	09/17/92	SW6010	Iron	25000.0000		3.4000	mg/kg	
						Lead	23.0000		3.4000	mg/kg	
						Magnesium	7700.0000	Z	2.0000	mg/kg	
						Manganese	440.0000		0.1400	mg/kg	
						Nickel	61.0000		1.4000	mg/kg	
						Potassium	1900.0000		200.0000	mg/kg	
						Sodium	350.0000		68.0000	mg/kg	
						Vanadium	54.0000		0.5400	mg/kg	
						Zinc	74.0000	Z	0.3400	mg/kg	
						PCB-1260	0.0540		0.0300	MG/KG	
						Total PCB	0.0540		0.0300	MG/KG	
						IC05H0034	IC05SH002502N	4.00	08/14/92	09/17/92	SW6010
Barium	77.0000		0.3000	mg/kg							
Beryllium	0.2900	@	0.0760	mg/kg							
Cadmium	0.4000	@	0.3000	mg/kg							
Calcium	1700.0000		76.0000	mg/kg							
Chromium	40.0000		0.5300	mg/kg							
Cobalt	9.2000		0.5300	mg/kg							
Copper	17.0000		0.4500	mg/kg							
Iron	14000.0000		3.8000	mg/kg							
Lead	21.0000		3.8000	mg/kg							
Magnesium	2200.0000	Z	2.3000	mg/kg							
Manganese	330.0000		0.1500	mg/kg							
Nickel	22.0000	@	1.5000	mg/kg							
Potassium	770.0000	@	230.0000	mg/kg							
Sodium	170.0000	@	76.0000	mg/kg							
Vanadium	40.0000		0.6100	mg/kg							
Zinc	59.0000	Z	0.3800	mg/kg							

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0034	IC05SH003401N	0.00	11/23/92	12/07/92	SW6010	Antimony	4.7000	Ø	3.2000	mg/kg
						Arsenic	18.0000	Ø	4.9000	mg/kg
						Barium	150.0000		0.3700	mg/kg
						Beryllium	0.2400	Ø	0.0930	mg/kg
						Cadmium	30.0000		0.3700	mg/kg
						Calcium	3700.0000		93.0000	mg/kg
						Chromium	60.0000		0.6500	mg/kg
						Cobalt	9.9000		0.6500	mg/kg
						Copper	97.0000		0.5600	mg/kg
						Iron	21000.0000		4.6000	mg/kg
						Lead	220.0000		4.6000	mg/kg
						Magnesium	2600.0000		2.8000	mg/kg
						Manganese	350.0000		0.1900	mg/kg
						Molybdenum	5.2000		0.7400	mg/kg
						Nickel	30.0000		1.9000	mg/kg
						Potassium	1100.0000		93.0000	mg/kg
						Silver	74.0000		0.6500	mg/kg
						Sodium	350.0000	Ø	93.0000	mg/kg
						Vanadium	38.0000		0.7400	mg/kg
						Zinc	630.0000		0.4600	mg/kg
			12/03/92		SW7060	Arsenic	4.7000		0.3800	mg/kg
			02/22/93		SW7196	Chromium, Hexavalent	0.1500	Ø	0.1300	mg/kg
			12/08/92		SW7421	Lead	280.0000	E	28.0000	mg/kg
			12/10/92		SW7470	Mercury	0.3400		0.0490	mg/kg
			12/07/92		SW8270	Benzo(a)anthracene	0.6800	Ø	0.4400	ug/g
						Benzo(a)pyrene	0.6700	Ø	0.4400	ug/g
						Benzo(b)fluoranthene	2.5000	X	0.4400	ug/g
						Benzo(k)fluoranthene	2.5000	X	0.4400	ug/g
						Bis(2-ethylhexyl)phthalat	5.9000		0.4400	ug/g
						e				
						Butylbenzylphthalate	0.7400	Ø	0.4400	ug/g
						Chrysene	0.9600	Ø	0.4400	ug/g
						Fluoranthene	1.1000	Ø	0.4400	ug/g

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0034	IC05SH003401N	0.00	11/23/92	12/07/92	SW8270	Pyrene	1.7000	Ø	0.4400	ug/g
						di-n-Butylphthalate	0.5700	Ø	0.4400	ug/g
IC05H0035	IC05SH003402N	1.00	11/23/92	12/17/92	SW8080	PCB-1260	0.3500		0.0100	MG/KG
						Total PCB	0.3500		0.0100	MG/KG
IC05H0035	IC05SH003501N	0.00	11/12/92	12/19/92	8015E	Total Petroleum Hydrocarb	13.0000		10.0000	MG/KG
						ons (by extraction)				
					SW6010	Aluminum	16000.0000		4.9000	mg/kg
						Antimony	14.0000	ZØ	3.8000	mg/kg
						Barium	100.0000		0.4300	mg/kg
						Beryllium	0.2800	Ø	0.1100	mg/kg
						Cadmium	34.0000		0.4300	mg/kg
						Calcium	4600.0000		110.0000	mg/kg
						Chromium	240.0000		0.7600	mg/kg
						Cobalt	15.0000		0.7600	mg/kg
						Copper	110.0000		0.6500	mg/kg
						Iron	51000.0000		5.4000	mg/kg
						Lead	1300.0000		5.4000	mg/kg
						Magnesium	7100.0000		3.3000	mg/kg
						Manganese	420.0000		0.2200	mg/kg
						Molybdenum	5.6000		0.8700	mg/kg
						Nickel	74.0000		2.2000	mg/kg
						Potassium	1800.0000		110.0000	mg/kg
						Selenium	16.0000	Ø	8.2000	mg/kg
						Silver	8.0000		0.7600	mg/kg
						Sodium	400.0000	Ø	110.0000	mg/kg
						Vanadium	61.0000		0.8700	mg/kg
					SW7050	Zinc	450.0000		0.5400	mg/kg
						Arsenic	7.7000		0.6100	mg/kg
						Lead	1300.0000		63.0000	mg/kg
						Mercury	0.1200	Ø	0.0440	mg/kg
			12/01/92		SW7421					
			12/04/92		SW7470					
			11/30/92		SW7740					
							1.8000	Ø	0.4300	mg/kg





## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0037	IC05SH003701N	0.00	11/19/92	12/17/92	8015E	e Total Petroleum Hydrocarb ons (by extraction)	44.0000		11.0000	MG/KG
			12/03/92		SW6010	Aluminum	14000.0000			3.7000 mg/kg
						Antimony	29.0000	Z		2.9000 mg/kg
						Barium	120.0000			0.3300 mg/kg
						Beryllium	0.3200	0		0.0820 mg/kg
						Cadmium	49.0000			0.3300 mg/kg
						Calcium	5400.0000			82.0000 mg/kg
						Chromium	170.0000			0.5700 mg/kg
						Cobalt	14.0000			0.5700 mg/kg
						Copper	140.0000			0.4900 mg/kg
						Iron	44000.0000			4.1000 mg/kg
						Lead	2500.0000			4.1000 mg/kg
						Magnesium	5600.0000			2.5000 mg/kg
						Manganese	460.0000			0.1600 mg/kg
						Molybdenum	20.0000			0.6600 mg/kg
						Nickel	71.0000			1.6000 mg/kg
						Potassium	1200.0000			82.0000 mg/kg
						Selenium	23.0000	0		6.1000 mg/kg
						Silver	7.5000			0.5700 mg/kg
						Sodium	450.0000			82.0000 mg/kg
						Thallium	11.0000	0		4.2000 mg/kg
						Vanadium	51.0000			0.6600 mg/kg
						Zinc	560.0000			0.4100 mg/kg
					SW7060	Arsenic	6.6000			0.6700 mg/kg
					SW7421	Lead	2500.0000	Z		200.0000 mg/kg
			12/07/92		SW7470	Mercury	7.5000			0.0420 mg/kg
			12/10/92		SW8270	Bis(2-ethylhexyl)phthalat	3.7000			0.3600 ug/g
			12/07/92			e				
						Butylbenzylphthalate	3.2000			0.3600 ug/g
					SW8280	1,2,3,4,6,7,8-HpCDD	0.2300	0		0.1000 ng/g
			12/08/92							

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0037	IC05SH003701N	0.00	11/19/92	12/08/92	SW8280	OCDF	0.6000		0.1000	ng/g
						Octachlorodibenzodioxin	2.7000		0.1300	ng/g
						Total Cyanide	0.3300	0	0.2700	mg/kg
						Heptachlorodibenzodioxin	0.3900		0.2000	ng/g
						HpCDF	0.2100		0.1400	ng/g
						OCDF	0.6100		0.1800	ng/g
IC05H0038	IC05SH003801N	0.00	11/13/92	12/19/92	8015E	Octachlorodibenzodioxin	2.6000		0.2400	ng/g
						Total Petroleum Hydrocarb	12.0000		10.0000	Mg/Kg
						ons (by extraction)				
						Aluminum	13000.0000		3.7000	mg/kg
						Antimony	11.0000	0	2.8000	mg/kg
						Barium	110.0000		0.3300	mg/kg
						Beryllium	0.2200	0	0.0810	mg/kg
						Cadmium	18.0000		0.3300	mg/kg
						Calcium	3400.0000		81.0000	mg/kg
						Chromium	91.0000		0.5700	mg/kg
						Cobalt	9.9000		0.5700	mg/kg
						Copper	47.0000		0.4900	mg/kg
						Iron	26000.0000		4.1000	mg/kg
						Lead	320.0000		4.1000	mg/kg
						Magnesium	6200.0000		2.4000	mg/kg
						Manganese	260.0000		0.1600	mg/kg
						Molybdenum	2.3000	0	0.6500	mg/kg
						Nickel	50.0000		1.6000	mg/kg
						Potassium	1300.0000		81.0000	mg/kg
						Selenium	11.0000	0	6.1000	mg/kg
						Silver	3.3000		0.5700	mg/kg
						Sodium	330.0000	0	81.0000	mg/kg
						Vanadium	46.0000		0.6500	mg/kg
						Zinc	160.0000		0.4100	mg/kg
						Arsenic	6.4000		0.6500	mg/kg
						Lead	410.0000		24.0000	mg/kg
					SW7060					
					SW7421					
				12/04/92						

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0038	IC05SH003801N	0.00	11/13/92	12/04/92	SW7470	Mercury	0.0860	Q	0.0420	mg/kg
					SW7740	Selenium	0.7500	Q	0.4000	mg/kg
					SW8270	Bis(2-ethylhexyl)phthalate	1.3000	Q	0.3400	ug/g
					SW8280	1,2,3,4,6,7,8-HpCDD	0.2400	Q	0.1200	ng/g
						1,2,3,4,6,7,8-HpCDF	0.0880	Q	0.0780	ng/g
						OCDF	0.2000	Q	0.1700	ng/g
						Octachlorodibenzodioxin	1.6000		0.2600	ng/g
					SW9012	Total Cyanide	0.9800	Q	0.2500	mg/kg
				11/24/92	T08280	Heptachlorodibenzodioxin	0.5100		0.2600	ng/g
				12/03/92		HpCDF	0.2400		0.1800	ng/g
						Octachlorodibenzodioxin	1.7000		0.4500	ng/g
IC05H0039	IC05SH003802N	1.00	11/13/92	12/04/92	SW8080	PCB-1260	0.0220		0.0100	MG/KG
						Total PCB	0.0220		0.0100	MG/KG
	IC05SH003901N	0.00	11/13/92	12/19/92	8015E	Total Petroleum Hydrocarbons (by extraction)	16.0000		10.0000	MG/KG
					SW6010	Aluminum	13000.0000			
						Antimony	3.9000	Q	3.4000	mg/kg
						Barium	82.0000		2.7000	mg/kg
						Beryllium	0.2200	Q	0.3100	mg/kg
						Cadmium	13.0000		0.0760	mg/kg
						Calcium	3500.0000		0.3100	mg/kg
						Chromium	70.0000		76.0000	mg/kg
						Cobalt	9.9000		0.5300	mg/kg
						Copper	64.0000		0.4600	mg/kg
						Iron	22000.0000		3.8000	mg/kg
						Lead	210.0000		3.8000	mg/kg
						Magnesium	6000.0000		2.3000	mg/kg
						Manganese	260.0000		0.1500	mg/kg
						Molybdenum	2.2000	Q	0.6100	mg/kg
						Nickel	44.0000		1.5000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0040	IC05SH004001N	0.00	11/13/92	12/03/92	SW6010	Copper	31.0000		0.4700	mg/kg
						Iron	19000.0000		3.9000	mg/kg
						Lead	96.0000		3.9000	mg/kg
						Magnesium	6800.0000		2.3000	mg/kg
						Manganese	230.0000		0.1600	mg/kg
						Molybdenum	1.3000	0	0.6200	mg/kg
						Nickel	52.0000		1.6000	mg/kg
						Potassium	1000.0000		78.0000	mg/kg
						Selenium	6.5000	0	5.8000	mg/kg
						Silver	2.0000	0	0.5400	mg/kg
						Sodium	390.0000		78.0000	mg/kg
						Thallium	5.9000	0	4.0000	mg/kg
						Vanadium	44.0000		0.6200	mg/kg
						Zinc	72.0000		0.3900	mg/kg
						Arsenic	6.1000		0.6000	mg/kg
						Lead	120.0000		9.0000	mg/kg
						Selenium	1.1000	0	0.3800	mg/kg
IC05H0041	IC05SH004002N	1.00	11/13/92	12/03/92	SW8270	Bis(2-ethylhexyl)phthalat	0.7700	0	0.3400	ug/g
						Octachlorodibenzodioxin	1.0000	0	0.2700	ng/g
						Octachlorodibenzodioxin	0.9700		0.4700	ng/g
						PCB-1260	0.0400		0.0100	MG/KG
						Total PCB	0.0400		0.0100	MG/KG
						Aluminum	13000.0000		3.6000	mg/kg
						Antimony	6.4000	0	2.8000	mg/kg
						Barium	71.0000		0.3200	mg/kg
						Beryllium	0.2200	0	0.0810	mg/kg
						Cadmium	4.9000		0.3200	mg/kg
IC05SH004101N	IC05SH004101N	0.00	11/16/92	12/03/92	SW6010	Calcium	3000.0000		81.0000	mg/kg
						Chromium	69.0000		0.5600	mg/kg
						Cobalt	10.0000		0.5600	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0041	IC05SH004101N	0.00	11/16/92	12/03/92	SW6010	Copper	33.0000		0.4800	mg/kg
						Iron	22000.0000		4.0000	mg/kg
						Lead	220.0000		4.0000	mg/kg
						Magnesium	5600.0000		2.4000	mg/kg
						Manganese	270.0000		0.1600	mg/kg
						Molybdenum	1.3000	Q	0.6500	mg/kg
						Nickel	43.0000		1.6000	mg/kg
						Potassium	1300.0000		81.0000	mg/kg
						Silver	2.5000	Q	0.5600	mg/kg
						Sodium	340.0000	Q	81.0000	mg/kg
						Vanadium	45.0000		0.6500	mg/kg
						Zinc	150.0000		0.4000	mg/kg
						Arsenic	7.8000		0.6500	mg/kg
						Lead	370.0000		24.0000	mg/kg
						Selenium	0.5700	Q	0.4000	mg/kg
						Bis(2-ethylhexyl)phthalate	1.4000	Q	0.3400	ug/g
IC05H0042	IC05SH004201N	1.00	11/16/92	12/04/92	SW8080	SW7060				
						SW7421				
						SW7740				
						SW8270				
						Octachlorodibenzodioxin	0.5500	Q	0.2000	ng/g
						Total Cyanide	0.3500	Q	0.2500	mg/kg
						Octachlorodibenzodioxin	0.5600		0.4000	ng/g
						PCB-1260	0.0190		0.0100	MG/KG
						Total PCB	0.0190		0.0100	MG/KG
						Total Petroleum Hydrocarbons (by extraction)	29.0000		10.0000	MG/KG
						Aluminum	11000.0000		3.6000	mg/kg
						Antimony	4.6000	Q	2.8000	mg/kg
						Barium	1700.0000		0.3200	mg/kg
						Beryllium	0.2400	Q	0.0810	mg/kg
						Cadmium	3.3000		0.3200	mg/kg
						Calcium	3400.0000	E	81.0000	mg/kg
						Chromium	81.0000		0.5600	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0042	IC05SH004201N	0.00	11/16/92	12/03/92	SW6010	Cobalt	10.0000		0.5600	mg/kg
						Copper	47.0000		0.4800	mg/kg
						Iron	23000.0000		4.0000	mg/kg
						Lead	270.0000	E	4.0000	mg/kg
						Magnesium	5300.0000		2.4000	mg/kg
						Manganese	250.0000		0.1600	mg/kg
						Molybdenum	1.8000	Ø	0.6500	mg/kg
						Nickel	43.0000		1.6000	mg/kg
						Potassium	1100.0000		81.0000	mg/kg
						Selenium	14.0000	Ø	6.0000	mg/kg
						Silver	2.9000		0.5600	mg/kg
						Sodium	350.0000	Ø	81.0000	mg/kg
						Vanadium	43.0000		0.6500	mg/kg
						Zinc	290.0000	E	0.4000	mg/kg
					SW7060	Arsenic	5.2000		0.3200	mg/kg
					SW7421	Lead	260.0000		12.0000	mg/kg
					SW7470	Mercury	0.0870	Ø	0.0430	mg/kg
IC05H0043	IC05SH004301N	0.00	11/12/92	12/03/92	SW6010	Bis(2-ethylhexyl)phthalat e	1.3000	Ø	0.3400	ug/g
						Octachlorodibenzodioxin	0.6400		0.1200	ng/g
						Octachlorodibenzodioxin	0.5900		0.2100	ng/g
						Aluminum	12000.0000		3.6000	mg/kg
						Barium	71.0000		0.3200	mg/kg
						Beryllium	0.3000	Ø	0.0790	mg/kg
						Cadmium	0.6400	Ø	0.3200	mg/kg
						Calcium	1700.0000		79.0000	mg/kg
						Chromium	19.0000		0.5600	mg/kg
						Cobalt	6.2000		0.5600	mg/kg
						Copper	12.0000		0.4800	mg/kg
						Iron	11000.0000		4.0000	mg/kg
						Lead	10.0000	Ø	4.0000	mg/kg
						Magnesium	1300.0000		2.4000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0043	IC05SH004301N	0.00	11/12/92	12/03/92	SW6010	Manganese	280.0000		0.1600	mg/kg
						Nickel	17.0000		1.6000	mg/kg
						Potassium	650.0000		79.0000	mg/kg
						Selenium	7.7000	0	6.0000	mg/kg
						Silver	1.2000	0	0.5600	mg/kg
						Sodium	110.0000	0	79.0000	mg/kg
						Vanadium	34.0000		0.6300	mg/kg
						Zinc	22.0000		0.4000	mg/kg
						Arsenic	2.4000		0.3200	mg/kg
						Lead	7.3000		0.9600	mg/kg
						Selenium	1.5000	0	0.4000	mg/kg
						PCB-1260	0.0240		0.0100	MG/KG
						Total PCB	0.0240		0.0000	MG/KG
IC05H0044	IC05SH004401N	0.00	11/12/92	12/03/92	SW6010	Aluminum	12000.0000		3.5000	mg/kg
						Barium	100.0000		0.3100	mg/kg
						Beryllium	0.2900	0	0.0790	mg/kg
						Cadmium	0.6000	0	0.3100	mg/kg
						Calcium	1800.0000		79.0000	mg/kg
						Chromium	23.0000		0.5500	mg/kg
						Cobalt	7.1000		0.5500	mg/kg
						Copper	12.0000		0.4700	mg/kg
						Iron	14000.0000		3.9000	mg/kg
						Lead	20.0000		3.9000	mg/kg
						Magnesium	1900.0000		2.4000	mg/kg
						Manganese	260.0000		0.1600	mg/kg
						Nickel	15.0000		1.6000	mg/kg
						Potassium	630.0000		79.0000	mg/kg
						Selenium	7.1000	0	5.9000	mg/kg
						Silver	1.3000	0	0.5500	mg/kg
						Sodium	91.0000	0	79.0000	mg/kg
						Thallium	5.1000	0	4.0000	mg/kg
						Vanadium	41.0000		0.6300	mg/kg





## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0045	IC05SH004501N	0.00	11/20/92	12/17/92	SW8080	PCB-1260	0.0790		0.0100	MG/KG
						Total PCB	0.0790		0.0100	MG/KG
						Bis(2-ethylhexyl)phthalate	0.7300	Q	0.3900	ug/g
IC05H0046	IC05SH004502N	1.00	11/20/92	12/17/92	SW8080	PCB-1260	0.0350		0.0100	MG/KG
						Total PCB	0.0350		0.0100	MG/KG
						Aluminum	15000.0000		3.8000	mg/kg
IC05H0046	IC05SH004601N	0.00	11/12/92	12/03/92	SW6010	Antimony	5.5000	ZQ	3.0000	mg/kg
						Barium	120.0000		0.3400	mg/kg
						Beryllium	0.3300	Q	0.0850	mg/kg
						Cadmium	0.8700	Q	0.3400	mg/kg
						Calcium	2300.0000		85.0000	mg/kg
						Chromium	30.0000		0.5900	mg/kg
						Cobalt	7.5000		0.5900	mg/kg
						Copper	15.0000		0.5100	mg/kg
						Iron	20000.0000		4.2000	mg/kg
						Lead	27.0000		4.2000	mg/kg
						Magnesium	2900.0000		2.5000	mg/kg
						Manganese	200.0000		0.1700	mg/kg
						Molybdenum	0.9500	Q	0.6800	mg/kg
						Nickel	19.0000		1.7000	mg/kg
						Potassium	580.0000		85.0000	mg/kg
						Silver	2.0000	Q	0.5900	mg/kg
						Sodium	140.0000	Q	85.0000	mg/kg
						Thallium	6.2000	Q	4.3000	mg/kg
						Vanadium	57.0000		0.6800	mg/kg
						Zinc	42.0000		0.4200	mg/kg
						Arsenic	2.2000		0.3400	mg/kg
						Lead	31.0000		2.0000	mg/kg
						Selenium	1.6000	Q	0.4300	mg/kg
						PCB-1260	0.0230		0.0100	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0046	IC05SH004601N	0.00	11/12/92	12/01/92	SW8080	Total PCB	0.0230		0.0000	MG/KG
			12/03/92		SW8280	Octachlorodibenzodioxin	0.3200	0	0.2400	ng/g
IC05H0047	IC05SH004701N	0.00	11/19/92	12/03/92	SW6010	Aluminum	12000.0000		4.0000	mg/kg
						Barium	110.0000		0.3500	mg/kg
						Beryllium	0.2400	0	0.0800	mg/kg
						Cadmium	5.6000		0.3500	mg/kg
						Calcium	3000.0000		88.0000	mg/kg
						Chromium	50.0000		0.6200	mg/kg
						Cobalt	8.7000		0.6200	mg/kg
						Copper	27.0000		0.5300	mg/kg
						Iron	20000.0000		4.4000	mg/kg
						Lead	80.0000		4.4000	mg/kg
						Magnesium	3900.0000		2.7000	mg/kg
						Manganese	270.0000		0.1800	mg/kg
						Molybdenum	1.4000	0	0.7100	mg/kg
						Nickel	30.0000		1.8000	mg/kg
						Potassium	880.0000		88.0000	mg/kg
						Selenium	8.6000	0	6.6000	mg/kg
						Silver	2.0000	0	0.6200	mg/kg
						Sodium	250.0000	0	88.0000	mg/kg
						Thallium	5.4000	0	4.5000	mg/kg
						Vanadium	44.0000		0.7100	mg/kg
						Zinc	66.0000		0.4400	mg/kg
				12/07/92	SW7060	Arsenic	4.8000		0.3200	mg/kg
					SW7421	Lead	270.0000	Z	19.0000	mg/kg
IC05SH004702N		1.00	11/19/92	12/17/92	8015E	Total Petroleum Hydrocarbons (by extraction)	45.0000		11.0000	MG/KG
IC05SH004704N		3.00	11/19/92	12/22/92	8015E	Total Petroleum Hydrocarbons (by extraction)	130.0000	E	43.0000	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0048	IC05SH004801N	0.00	11/20/92	12/07/92	SW6010	Aluminum	12000.0000		3.9000	mg/kg
						Antimony	12.0000	0	3.0000	mg/kg
						Barium	120.0000		0.3400	mg/kg
						Beryllium	0.2300	0	0.0860	mg/kg
						Cadmium	6.0000		0.3400	mg/kg
						Calcium	2600.0000		86.0000	mg/kg
						Chromium	160.0000		0.6000	mg/kg
						Cobalt	9.7000		0.6000	mg/kg
						Copper	92.0000		0.5200	mg/kg
						Lead	750.0000		4.3000	mg/kg
						Magnesium	4500.0000		2.6000	mg/kg
						Manganese	270.0000		0.1700	mg/kg
						Molybdenum	3.3000	0	0.6900	mg/kg
						Nickel	46.0000		1.7000	mg/kg
						Potassium	1300.0000		86.0000	mg/kg
						Selenium	11.0000	0	6.5000	mg/kg
						Sodium	250.0000	0	86.0000	mg/kg
						Thallium	12.0000	0	4.4000	mg/kg
						Vanadium	43.0000		0.6900	mg/kg
						Zinc	360.0000		0.4300	mg/kg
						Arsenic	13.0000		1.3000	mg/kg
IC05H0049	IC05SH004901N	2.00	11/20/92	12/17/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	1400.0000		100.0000	mg/kg
							0.2500	0	0.0520	mg/kg
							0.8700	0	0.4200	mg/kg
						Total Cyanide	0.3400	0	0.2700	mg/kg
							28.0000		11.0000	MG/KG
						Aluminum	8400.0000		3.5000	mg/kg
						Antimony	19.0000		2.7000	mg/kg
						Barium	53.0000		0.3100	mg/kg
						Calcium	2200.0000		78.0000	mg/kg

## MCCELLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0049	IC05SH004901N	0.00	11/20/92	12/07/92	SW6010	Chromium	100.0000		0.5500	mg/kg
						Lead	390.0000		3.9000	mg/kg
						Magnesium	3600.0000		2.3000	mg/kg
						Manganese	530.0000		0.1600	mg/kg
						Nickel	42.0000		1.6000	mg/kg
						Potassium	830.0000		78.0000	mg/kg
						Silver	46.0000		0.5500	mg/kg
						Sodium	200.0000	Ø	78.0000	mg/kg
						Thallium	14.0000	Ø	4.0000	mg/kg
						Arsenic	16.0000		1.2000	mg/kg
					SW7060	Lead	580.0000		45.0000	mg/kg
					SW7421	Mercury	0.0640	Ø	0.0500	mg/kg
					SW7470	Selenium	1.6000	Ø	0.3700	mg/kg
					SW7740					
IC05H0050	IC05SH004902N	1.00	11/20/92	12/17/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	110.0000		11.0000	MG/KG
IC05H0050	IC05SH005001N	0.00	11/20/92	12/07/92	SW6010	Aluminum	12000.0000		3.7000	mg/kg
						Antimony	13.0000	Ø	2.9000	mg/kg
						Arsenic	21.0000	Ø	4.3000	mg/kg
						Barium	70.0000		0.3300	mg/kg
						Beryllium	0.2200	Ø	0.0820	mg/kg
						Cadmium	24.0000		0.3300	mg/kg
						Calcium	3700.0000		82.0000	mg/kg
						Chromium	140.0000		0.5700	mg/kg
						Cobalt	11.0000		0.5700	mg/kg
						Copper	41.0000		0.4900	mg/kg
						Iron	24000.0000		4.1000	mg/kg
						Lead	120.0000		4.1000	mg/kg
						Magnesium	5400.0000		2.5000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0050	IC05SH005001N	0.00	11/20/92	12/07/92	SW6010	Manganese	530.0000		0.1600	mg/kg
						Molybdenum	2.1000	Ø	0.6600	mg/kg
						Nickel	44.0000		1.6000	mg/kg
						Potassium	1300.0000		82.0000	mg/kg
						Silver	0.9200	Ø	0.5700	mg/kg
						Sodium	330.0000	Ø	82.0000	mg/kg
						Vanadium	46.0000		0.6600	mg/kg
						Zinc	110.0000		0.4100	mg/kg
						Arsenic	5.3000		0.3300	mg/kg
						Lead	120.0000		9.9000	mg/kg
						Mercury	0.0470	Ø	0.0400	mg/kg
						Total Cyanide	0.3700	Ø	0.2600	mg/kg
						Total Petroleum Hydrocarb ons (by extraction)	14.0000		11.0000	MG/KG
	IC05SH005002N	1.00	11/20/92	12/17/92	8015E					
IC05H0051	IC05SH005003N	2.00	11/20/92	12/18/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	20.0000		11.0000	MG/KG
						Aluminum	9500.0000		3.6000	mg/kg
						Antimony	5.6000	ZØ	2.8000	mg/kg
						Barium	62.0000		0.3200	mg/kg
						Beryllium	0.1700	Ø	0.0810	mg/kg
						Cadmium	4.6000		0.3200	mg/kg
						Calcium	3100.0000		81.0000	mg/kg
						Chromium	75.0000		0.5600	mg/kg
						Cobalt	8.9000		0.5600	mg/kg
						Copper	51.0000		0.4800	mg/kg
						Iron	25000.0000		4.0000	mg/kg
						Lead	260.0000		4.0000	mg/kg
						Magnesium	4200.0000		2.4000	mg/kg
						Manganese	250.0000		0.1600	mg/kg
						Molybdenum	2.4000	Ø	0.6500	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS						
IC05H0051	IC05SH005101N	0.00	11/12/92	12/03/92	SW6010	Nicke	34.0000		1.6000	mg/kg						
						Potassium	960.0000		81.0000	mg/kg						
						Selenium	15.0000	Ø	6.0000	mg/kg						
						Silver	2.5000	Ø	0.5600	mg/kg						
						Sodium	310.0000	Ø	81.0000	mg/kg						
						Thallium	4.2000	Ø	4.1000	mg/kg						
						Vanadium	41.0000		0.6500	mg/kg						
						Zinc	120.0000		0.4000	mg/kg						
						Arsenic	6.6000		0.6200	mg/kg						
						Lead	380.0000		19.0000	mg/kg						
						Mercury	0.0800	Ø	0.0410	mg/kg						
						Selenium	1.9000	Ø	0.3900	mg/kg						
						IC05H0052	IC05SH005201N	0.00	11/19/92	12/03/92	SW6010	Aluminum	12000.0000		3.6000	mg/kg
												Antimony	6.8000	ZØ	2.8000	mg/kg
Barium	92.0000		0.3200	mg/kg												
Beryllium	0.1900	Ø	0.0810	mg/kg												
Cadmium	27.0000		0.3200	mg/kg												
Calcium	3600.0000		81.0000	mg/kg												
Chromium	68.0000		0.5600	mg/kg												
Cobalt	11.0000		0.5600	mg/kg												
Copper	410.0000		0.4800	mg/kg												
Iron	27000.0000		4.0000	mg/kg												
Lead	170.0000		4.0000	mg/kg												
Magnesium	5500.0000		2.4000	mg/kg												
Manganese	300.0000		0.1600	mg/kg												
Molybdenum	3.3000		0.6500	mg/kg												
Nickel	47.0000		1.6000	mg/kg												
Potassium	1500.0000		81.0000	mg/kg												
Selenium	10.0000	Ø	6.0000	mg/kg												
Silver	4.6000		0.5600	mg/kg												
Sodium	360.0000	Ø	81.0000	mg/kg												
Vanadium	47.0000		0.6500	mg/kg												

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0052	IC05SH005201N	0.00	11/19/92	12/03/92	SW6010	Zinc	170.0000		0.4000	mg/kg
						Arsenic	5.8000		0.6300	mg/kg
						Lead	240.0000	Z	19.0000	mg/kg
						Mercury	0.7700		0.0470	mg/kg
						Total Cyanide	0.7000	Ø	0.2700	mg/kg
						pH	7.0000		0.0000	pH units
						Total organic carbon	7100.0000		1100.0000	mg/kg
						Total Petroleum Hydrocarb ons (by extraction)	24.0000		11.0000	MG/KG
IC05H0053	IC05SH005301N	0.00	11/13/92	12/03/92	SW6010	Aluminum	11000.0000		3.7000	mg/kg
						Antimony	7.0000	Ø	2.8000	mg/kg
						Barium	77.0000		0.3300	mg/kg
						Beryllium	0.1800	Ø	0.0810	mg/kg
						Cadmium	13.0000		0.3300	mg/kg
						Calcium	3400.0000		81.0000	mg/kg
						Chromium	100.0000		0.5700	mg/kg
						Cobalt	10.0000		0.5700	mg/kg
						Copper	56.0000		0.4900	mg/kg
						Iron	33000.0000		4.1000	mg/kg
						Lead	500.0000		4.1000	mg/kg
						Magnesium	4900.0000		2.4000	mg/kg
						Manganese	310.0000		0.1600	mg/kg
						Molybdenum	3.3000		0.6500	mg/kg
						Nickel	45.0000		1.6000	mg/kg
						Potassium	1200.0000		81.0000	mg/kg
						Selenium	15.0000	Ø	6.1000	mg/kg
						Silver	4.7000		0.5700	mg/kg
						Sodium	370.0000	Ø	81.0000	mg/kg
						Thallium	12.0000	Ø	4.1000	mg/kg
						Vanadium	42.0000		0.6500	mg/kg
						Zinc	240.0000		0.4100	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0053	IC05SH005301N	0.00	11/13/92	12/03/92	SW7060	Arsenic	7.7000		0.6300	mg/kg
				12/04/92	SW7421	Lead	640.0000		47.0000	mg/kg
					SW7470	Mercury	0.4200		0.0460	mg/kg
				11/24/92	SW9012	Total Cyanide	5.5000		0.2500	mg/kg
IC05H0054	IC05SH005401N	0.00	11/16/92	12/03/92	SW6010	Aluminum	12000.0000		3.1000	mg/kg
						Antimony	9.7000	Z	2.4000	mg/kg
						Barium	71.0000		0.2700	mg/kg
						Beryllium	0.2300		0.0680	mg/kg
						Cadmium	11.0000		0.2700	mg/kg
						Calcium	4500.0000		68.0000	mg/kg
						Chromium	95.0000		0.4800	mg/kg
						Cobalt	9.2000		0.4800	mg/kg
						Copper	60.0000		0.4100	mg/kg
						Iron	26000.0000		3.4000	mg/kg
						Lead	440.0000		3.4000	mg/kg
						Magnesium	4700.0000		2.1000	mg/kg
						Manganese	270.0000		0.1400	mg/kg
						Molybdenum	2.2000		0.5500	mg/kg
						Nickel	39.0000		1.4000	mg/kg
						Potassium	1200.0000		68.0000	mg/kg
						Selenium	10.0000		5.1000	mg/kg
						Silver	4.2000		0.4800	mg/kg
						Sodium	400.0000		68.0000	mg/kg
						Thallium	8.9000		3.5000	mg/g
						Vanadium	44.0000		0.5500	mg/g
						Zinc	200.0000		0.3400	mg/kg
					SW7060	Arsenic	6.0000		0.5400	mg/kg
						Lead	560.0000	Z	41.0000	mg/kg
						Mercury	0.3600		0.0510	mg/kg
IC05SH005403N	2.00	11/16/92	12/21/92	8015E	Total Petroleum Hydrocarbons (by extraction)		260.0000	E	110.0000	MG/KG

## MCCLELLAN OUB RI JCTL RESULTS - 00 B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0054	IC05SH005404N	3.00	11/16/92	12/22/92	8015E	Total Petroleum Hydrocarbons (by extraction)	300.0000	E	53.0000	MG/KG
IC05H0055	IC05SH005501N	0.00	11/16/92	12/03/92	SW6010	Aluminum	13000.0000			mg/kg
						Antimony	7.6000	0		mg/kg
						Barium	100.0000	0		mg/kg
						Beryllium	0.2600			mg/kg
						Cadmium	24.0000			mg/kg
						Calcium	3700.0000			mg/kg
						Chromium	90.0000			mg/kg
						Cobalt	9.6000			mg/kg
						Copper	78.0000			mg/kg
						Iron	23000.0000			mg/kg
						Lead	660.0000			mg/kg
						Magnesium	5200.0000			mg/kg
						Manganese	250.0000			mg/kg
						Molybdenum	2.3000	0		mg/kg
						Nickel	43.0000			mg/kg
						Potassium	1100.0000			mg/kg
						Selenium	10.0000	0		mg/kg
						Silver	3.0000			mg/kg
						Sodium	390.0000	0		mg/kg
						Thallium	11.0000	0		mg/kg
						Vanadium	44.0000			mg/kg
						Zinc	180.0000			mg/kg
					SW7060	Arsenic	6.1000			mg/kg
				12/04/92	SW7421	Lead	900.0000			mg/kg
					SW7470	Mercury	0.2600			mg/kg
				12/07/92	SW7740	Selenium	0.4500	0		mg/kg
				12/02/92	SW9040	pH	6.8000			pH units
				12/04/92	SW9060	Total organic carbon	7500.0000		1100.0000	mg/kg
	IC05SH005504N	3.00	11/16/92	12/18/92	8015E	Total Petroleum Hydrocarb	15.0000		11.0000	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0056	IC05SH005601N	0.00	11/18/92	12/07/92	SW6010	ons (by extraction)				
						Aluminum	12000.0000			3.9000 mg/kg
						Antimony	12.0000	0		3.1000 mg/kg
						Arsenic	46.0000			4.6000 mg/kg
						Barium	82.0000			0.3500 mg/kg
						Beryllium	0.2300	0		0.0880 mg/kg
						Cadmium	16.0000			0.3500 mg/kg
						Calcium	3800.0000			88.0000 mg/kg
						Chromium	110.0000			0.6100 mg/kg
						Cobalt	13.0000			0.6100 mg/kg
						Copper	87.0000			0.5300 mg/kg
						Iron	54000.0000			18.0000 mg/kg
						Lead	470.0000			4.4000 mg/kg
						Magnesium	5600.0000			2.6000 mg/kg
						Manganese	350.0000			0.1800 mg/kg
						Molybdenum	4.2000	0		2.8000 mg/kg
						Nickel	62.0000			1.8000 mg/kg
						Potassium	1400.0000			88.0000 mg/kg
						Selenium	8.4000	0		6.6000 mg/kg
						Silver	1.4000	0		0.6100 mg/kg
						Sodium	530.0000			88.0000 mg/kg
						Thallium	14.0000			4.5000 mg/kg
						Vanadium	42.0000			0.7000 mg/kg
						Zinc	210.0000			0.4400 mg/kg
						Arsenic	7.2000			0.7100 mg/kg
						Lead	720.0000			53.0000 mg/kg
						Mercury	0.1400	0		0.0410 mg/kg
						pH	6.5000			0.0000 pH units
						Total organic carbon	6900.0000			1100.0000 mg/kg
IC05SH005603N	IC05SH005603N	2.00	11/18/92	12/22/92	8015E	Total Petroleum Hydrocarb	25.0000			11.0000 MG/KG
						ons (by extraction)				

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0057	IC05SH005701N	0.00	11/19/92	12/07/92	SW6010	Aluminum	11000.0000		3.5000	mg/kg
						Antimony	6.5000	Q	2.7000	mg/kg
						Arsenic	13.0000	Q	4.1000	mg/kg
						Barium	86.0000		0.3100	mg/kg
						Beryllium	0.2300	Q	0.0780	mg/kg
						Cadmium	14.0000		0.3100	mg/kg
						Calcium	3700.0000		78.0000	mg/kg
						Chromium	79.0000		0.5500	mg/kg
						Cobalt	9.6000		0.5500	mg/kg
						Copper	57.0000		0.4700	mg/kg
						Iron	20000.0000		3.9000	mg/kg
						Lead	280.0000		3.9000	mg/kg
						Magnesium	6000.0000		2.3000	mg/kg
						Manganese	300.0000		0.1600	mg/kg
						Molybdenum	1.1000	Q	0.6200	mg/kg
						Nickel	42.0000		1.6000	mg/kg
						Potassium	1300.0000		78.0000	mg/kg
						Silver	2.5000	Q	0.5500	mg/kg
						Sodium	310.0000	Q	78.0000	mg/kg
						Thallium	10.0000	Q	4.0000	mg/kg
						Vanadium	40.0000		0.6200	mg/kg
						Zinc	160.0000		0.3900	mg/kg
IC05H0058	IC05SH005801N	0.00	11/18/92	12/07/92	SW6010	Arsenic	4.2000		0.3100	mg/kg
						Lead	220.0000		23.0000	mg/kg
						Mercury	0.2000	Q	0.0460	mg/kg
						Total Cyanide	0.4500	Q	0.2800	mg/kg
						pH	8.0000		0.0000	pH units
						Total organic carbon	16000.0000		1100.0000	mg/kg
						Aluminum	6800.0000		3.6000	mg/kg
						Antimony	8.9000	Q	2.8000	mg/kg
						Arsenic	20.0000	Q	4.3000	mg/kg
						Barium	280.0000		0.3200	mg/kg

## MCCLLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0058	IC05SH005801N	0.00	11/18/92	12/07/92	SW6010	Beryllium	0.1100	Q	0.0810	mg/kg
						Cadmium	5.4000		0.3200	mg/kg
						Calcium	3100.0000		81.0000	mg/kg
						Chromium	73.0000		0.5600	mg/kg
						Cobalt	6.0000		0.5600	mg/kg
						Copper	62.0000		0.4800	mg/kg
						Iron	30000.0000		4.0000	mg/kg
						Lead	360.0000		4.0000	mg/kg
						Magnesium	2600.0000		2.4000	mg/kg
						Manganese	220.0000		0.1600	mg/kg
						Molybdenum	2.1000	Q	0.6500	mg/kg
						Nickel	25.0000		1.6000	mg/kg
						Potassium	1100.0000		81.0000	mg/kg
						Selenium	11.0000	Q	6.0000	mg/kg
						Silver	1.2000	Q	0.5600	mg/kg
						Sodium	400.0000	Q	81.0000	mg/kg
						Thallium	15.0000	Q	4.1000	mg/kg
						Vanadium	27.0000		0.6500	mg/kg
						Zinc	210.0000		0.4000	mg/kg
						Arsenic	7.4000		0.6500	mg/kg
IC05H0059	IC05SH005803N	2.00	11/18/92	12/22/92	8015E	Lead	600.0000		49.0000	mg/kg
						Mercury	0.3500		0.0370	mg/kg
						Selenium	0.4600	Q	0.4100	mg/kg
						Total Cyanide	0.4300	Q	0.2500	mg/kg
						Total Petroleum Hydrocarbons (by extraction)	43.0000		11.0000	MG/KG
						Total Petroleum Hydrocarbons (by extraction)	40.0000		11.0000	MG/KG
						Aluminum	10000.0000		3.6000	mg/kg
						Antimony	11.0000	Q	2.8000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0059	IC05SH005901N	0.00	11/19/92	12/07/92	SW6010	Arsenic	13.0000	Ø	4.2000	mg/kg
						Barium	63.0000		0.3200	mg/kg
						Beryllium	0.1900	Ø	0.0800	mg/kg
						Cadmium	23.0000		0.3200	mg/kg
						Calcium	2600.0000		80.0000	mg/kg
						Chromium	70.0000		0.5600	mg/kg
						Cobalt	9.2000		0.5600	mg/kg
						Copper	38.0000		0.4800	mg/kg
						Iron	18000.0000		4.0000	mg/kg
						Lead	200.0000		4.0000	mg/kg
						Magnesium	5400.0000		2.4000	mg/kg
						Manganese	250.0000		0.1600	mg/kg
						Molybdenum	1.5000	Ø	0.6400	mg/kg
						Nickel	42.0000		1.6000	mg/kg
						Potassium	1300.0000		80.0000	mg/kg
						Silver	0.8400	Ø	0.5600	mg/kg
						Sodium	280.0000	Ø	80.0000	mg/kg
						Vanadium	38.0000		0.6400	mg/kg
						Zinc	100.0000		0.4000	mg/kg
						Arsenic	5.8000		0.6700	mg/kg
						Lead	350.0000		25.0000	mg/kg
						Mercury	0.2800		0.0530	mg/kg
IC05H0070	IC05SH005902N	1.00	11/19/92	12/22/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	25.0000		11.0000	MG/KG
						OCDF	2.3000	Ø	0.8000	ng/g
						OCDF	2.3000		1.4000	ng/g
						PCB-1260	0.8000		0.2000	mg/kg
IC05H0072	IC05SH007201N	0.60	02/28/92	03/02/92	FPCB	PCB-1260	400.0000		0.2000	mg/kg
						PCB-1260	5.2000		0.2000	mg/kg
						PCB-1260				

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0074	IC05SH007401N	0.60	02/19/92	02/20/92	FPCB	PCB-1260	6.2000		0.2000	mg/kg
IC05H0075	IC05SH007501N	0.60	02/19/92	02/20/92	FPCB	PCB-1260	34000.0000		0.2000	mg/kg
	IC05SH007502N	1.00	02/19/92	02/20/92	FPCB	PCB-1260	54.0000		0.2000	mg/kg
	IC05SH007503N	2.00	02/19/92	02/20/92	FPCB	PCB-1260	8.1000		0.2000	mg/kg
	IC05SH007504N	3.00	02/19/92	02/20/92	FPCB	PCB-1260	22.0000		0.2000	mg/kg
IC05H0076	IC05SH007601N	0.60	02/18/92	02/19/92	FPCB	PCB-1260	82.0000		0.2000	mg/kg
IC05H0077	IC05SH007701N	0.60	03/03/92	03/03/92	FPCB	PCB-1260	3.4000		0.2000	mg/kg
IC05H0078	IC05SH007801N	0.60	02/25/92	02/26/92	FPCB	PCB-1260	38.0000		0.2000	mg/kg
	IC05SH007802N	1.00	02/25/92	02/25/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
				03/11/92	SW8080	PCB-1260	120.0000	C	33.0000	mg/kg
						Total PCB	120.0000	C	330.0000	mg/kg
	IC05SH007804N	2.50	02/25/92	02/26/92	FPCB	PCB-1260	3.3000		0.2000	mg/kg
IC05H0079	IC05SH007903N	3.00	02/27/92	02/28/92	FPCB	PCB-1260	6.0000		0.2000	mg/kg
				03/15/92	SW8080	PCB-1260	75.0000	C	3.0000	mg/kg
						Total PCB	75.0000	C	31.0000	mg/kg
IC05H0082	IC05SH008201N	0.60	02/25/92	02/26/92	FPCB	PCB-1260	53000.0000		0.2000	mg/kg
				03/15/92	SW8080	PCB-1260	240000.0000	C	32000.0000	mg/kg
						Total PCB	240000.0000	C	20000.0000	mg/kg
	IC05SH008202N	1.00	02/25/92	02/26/92	FPCB	PCB-1260	14000.0000		0.2000	mg/kg
				03/11/92	SW8080	PCB-1260	1600.0000	C	330.0000	mg/kg
						Total PCB	1600.0000	C	3300.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05SH0082	IC05SH008203N	2.00	02/25/92	02/26/92	FPCB	PCB-1260	25.0000		0.2000	mg/kg
	IC05SH008204N	2.50	02/25/92	02/26/92	FPCB	PCB-1260	230.0000		0.2000	mg/kg
IC05SH0083	IC05SH008301N	0.60	02/28/92	03/03/92	FPCB	PCB-1260	17000.0000		0.2000	mg/kg
	IC05SH008302N	1.00	02/28/92	03/03/92	FPCB	PCB-1260	8800.0000		0.2000	mg/kg
IC05SH0084	IC05SH008303N	2.00	02/28/92	03/03/92	FPCB	PCB-1260	1200.0000		0.2000	mg/kg
	IC05SH008401N	0.60	02/27/92	03/02/92	FPCB	PCB-1260	38000.0000		0.2000	mg/kg
				03/20/92	SW8080	PCB-1260	35000.0000	C	3200.0000	mg/kg
						Total PCB	35000.0000	C	32000.0000	mg/kg
IC05SH0085	IC05SH008402N	1.00	02/27/92	02/28/92	FPCB	PCB-1260	330.0000		0.2000	mg/kg
	IC05SH008403N	2.00	02/27/92	02/27/92	FPCB	PCB-1260	39.0000		0.2000	mg/kg
	IC05SH008404N	3.00	02/27/92	02/28/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
	IC05SH008501N	0.60	02/28/92	03/03/92	FPCB	PCB-1260	60000.0000		0.2000	mg/kg
IC05SH0086	IC05SH008502N	1.00	02/28/92	03/03/92	FPCB	PCB-1260	17000.0000		0.2000	mg/kg
	IC05SH008601N	0.60	02/25/92	02/26/92	FPCB	PCB-1260	28000.0000		0.2000	mg/kg
				03/11/92	SW8080	PCB-1260	170000.0000	C	33000.0000	mg/kg
						Total PCB	170000.0000	C	30000.0000	mg/kg
IC05SH008602N		1.00	02/25/92	02/26/92	FPCB	PCB-1260	640.0000		0.2000	mg/kg
				03/11/92	SW8080	PCB-1260	1800.0000	C	330.0000	mg/kg
						Total PCB	1800.0000	C	3300.0000	mg/kg
IC05SH008603N		2.00	02/25/92	02/26/92	FPCB	PCB-1260	94.0000		0.2000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0086	IC05SH008604N	2.75	02/25/92	02/26/92	FPCB	PCB-1260	160.0000		0.2000	mg/kg
	IC05SH008701N	0.60	02/26/92	02/28/92 03/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	100000.0000 60000.0000 60000.0000	C E E	0.2000 3800.0000 38000.0000	mg/kg mg/kg mg/kg
	IC05SH008702N	1.00	02/26/92	02/27/92 03/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1800.0000 9700.0000 9700.0000	C E E	0.2000 3200.0000 32000.0000	mg/kg mg/kg mg/kg
	IC05SH008703N	2.00	02/26/92	02/27/92	FPCB	PCB-1260	5.5000		0.2000	mg/kg
	IC05SH008704N	3.00	02/26/92	02/27/92	FPCB	PCB-1260	43.0000		0.2000	mg/kg
	IC05SH008801N	0.60	02/26/92	02/28/92 03/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	48000.0000 99000.0000 99000.0000	C E E	0.2000 3200.0000 32000.0000	mg/kg mg/kg mg/kg
	IC05SH008802N	1.00	02/26/92	02/27/92	FPCB	PCB-1260	130.0000		0.2000	mg/kg
	IC05SH008803N	2.00	02/26/92	02/27/92	FPCB	PCB-1260	150.0000		0.2000	mg/kg
	IC05SH008804N	3.00	02/26/92	02/27/92	FPCB	PCB-1260	130.0000		0.2000	mg/kg
	IC05SH008901N	0.60	02/26/92	02/27/92 03/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	26000.0000 73000.0000 73000.0000	C E E	0.2000 3200.0000 32000.0000	mg/kg mg/kg mg/kg
	IC05SH008902N	1.00	02/26/92	02/27/92	FPCB	PCB-1260	330.0000		0.2000	mg/kg
	IC05SH008903N	2.00	02/26/92	02/28/92	FPCB	PCB-1260	730.0000		0.2000	mg/kg
	IC05SH008904N	2.50	02/26/92	02/28/92	FPCB	PCB-1260	6900.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05H0089	IC05SH008904N	2.50	02/26/92	03/11/92	SW8080	PCB-1260	25000.0000	C	3200.0000	mg/kg
						Total PCB	25000.0000	C	32000.0000	mg/kg
IC05H0090	IC05SH009002N	1.00	02/28/92	03/02/92	FPCB	PCB-1260	2.1000		0.2000	mg/kg
	IC05SH009003N	2.00	02/28/92	03/02/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05H0091	IC05SH009101N	0.60	02/18/92	02/18/92	FPCB	PCB-1260	1.7000		0.2000	mg/kg
IC05H0093	IC05SH009301N	0.60	03/03/92	03/04/92	FPCB	PCB-1260	7.6000		0.2000	mg/kg
IC05H0094	IC05SH009401N	0.60	03/27/92	04/01/92	FPCB	PCB-1260	6.6000		0.2000	mg/kg
IC05H0095	IC05SH009501N	0.60	02/21/92	02/21/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
	IC05SH009502N	1.00	02/21/92	02/21/92	FPCB	PCB-1260	0.2300		0.2000	mg/kg
	IC05SH009503N	2.00	02/21/92	02/21/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
	IC05SH009504N	3.00	02/21/92	02/21/92	FPCB	PCB-1260	0.5800		0.2000	mg/kg
IC05H0096	IC05SH009601N	0.60	03/03/92	03/04/92	FPCB	PCB-1260	8.9000		0.2000	mg/kg
	IC05SH009602N	1.00	03/03/92	03/03/92	FPCB	PCB-1260	0.2700		0.2000	mg/kg
	IC05SH009603N	2.00	03/03/92	03/03/92	FPCB	PCB-1260	0.2700		0.2000	mg/kg
IC05H0097	IC05SH009701N	0.60	02/24/92	02/25/92	FPCB	PCB-1260	46.0000		0.2000	mg/kg
	IC05SH009702N	1.00	02/24/92	02/24/92	FPCB	PCB-1260	0.3800		0.2000	mg/kg
IC05S0005	IC05SS000501N	0.00	12/04/91	12/06/91	FPCB	PCB-1260	0.2500		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1500	C	0.0600	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0005	IC05SS000501N	0.00	12/04/91	12/19/91	SW8080	Total PCB	0.1500	C	0.0600	MG/KG
IC05S0006	IC05SS000601N	0.00	12/04/91	12/06/91	FPCB	PCB-1260	0.2400		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1400	C	0.0300	MG/KG
						Total PCB	0.1400	C	0.0300	MG/KG
IC05S0025	IC05SS002501N	0.00	12/05/91	12/06/91	FPCB	PCB-1260	0.3500		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1100	C	0.0600	MG/KG
						Total PCB	0.1100	C	0.0600	MG/KG
IC05S0026	IC05SS002601N	0.00	12/05/91	12/06/91	FPCB	PCB-1260	0.2000		0.2000	mg/kg
				12/30/91	SW8080	PCB-1260	0.1400	C	0.0600	MG/KG
						Total PCB	0.1400	C	0.0600	MG/KG
IC05S0027	IC05SS002701N	0.00	12/05/91	12/06/91	FPCB	PCB-1260	0.2900		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1000	C	0.0300	MG/KG
						Total PCB	0.1000	C	0.0300	MG/KG
IC05S0047	IC05SS004701N	0.00	12/05/91	12/06/91	FPCB	PCB-1260	0.2400		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1100	C	0.0600	MG/KG
						Total PCB	0.1100	C	0.0600	MG/KG
IC05S0054	IC05SS005401N	0.00	12/05/91	12/06/91	FPCB	PCB-1260	0.3500		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1300	C	0.0300	MG/KG
						Total PCB	0.1300	C	0.0300	MG/KG
IC05S0062	IC05SS006201N	0.00	12/05/91	12/06/91	FPCB	PCB-1260	0.2000		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.1200	C	0.0700	MG/KG
						Total PCB	0.1200	C	0.0700	MG/KG
IC05S0070	IC05SS007001N	0.00	12/05/91	12/09/91	FPCB	PCB-1260	0.4700		0.2000	mg/kg
				12/19/91	SW8080	PCB-1260	0.3200	C	0.0300	MG/KG
						Total PCB	0.3200	C	0.0300	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0071	IC05SS007101N	0.00	12/05/91	12/09/91 12/18/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2800 0.2000 0.2000			mg/kg MG/KG MG/KG
IC05S0072	IC05SS007201N	0.00	12/05/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2600 0.1700 0.1700			mg/kg MG/KG MG/KG
IC05S0074	IC05SS007401N	0.00	12/05/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2800 0.3200 0.3200			mg/kg MG/KG MG/KG
IC05S0076	IC05SS007601N	0.00	12/05/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2800 0.1800 0.1800			mg/kg MG/KG MG/KG
IC05S0077	IC05SS007701N	0.00	12/05/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2000 0.1600 0.1600			mg/kg MG/KG MG/KG
IC05S0078	IC05SS007801N	0.00	12/05/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3400 0.1500 0.1500			mg/kg MG/KG MG/KG
IC05S0079	IC05SS007901N	0.00	12/05/91	12/09/91 12/18/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9000 1.0000 1.0000			mg/kg MG/KG MG/KG
IC05S0098	IC05SS009801N	0.00	12/06/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3200 0.1800 0.1800			mg/kg MG/KG MG/KG
IC05S0099	IC05SS009901N	0.00	12/06/91	12/09/91	FPCB	PCB-1260	0.4800			mg/kg

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## MCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0099	IC05SS009901N	0.00	12/06/91	12/18/91	SW8080	PCB-1260 Total PCB	0.7900 0.7900	C C	0.3000 0.3000	MG/KG MG/KG
IC05S0100	IC05SS010001N	0.00	12/06/91	12/09/91 12/19/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3400 0.1900 0.1900	C C C	0.2000 0.0600 0.0600	mg/kg MG/KG MG/KG
IC05S0121	IC05SS012101N	0.00	12/06/91	12/10/91 12/31/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4300 0.4100 0.4100	C C C	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0122	IC05SS012201N	0.00	12/06/91	12/10/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2400 0.1200 0.1200	C C C	0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0123	IC05SS012301N	0.00	12/06/91	12/10/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3700 0.1400 0.1400	C C C	0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0124	IC05SS012401N	0.00	12/06/91	12/10/91 12/31/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.5000 1.2000 1.2000	C C C	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0125	IC05SS012501N	0.00	12/06/91	12/10/91 12/31/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6200 0.5200 0.5200	C C C	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0126	IC05SS012601N	0.00	12/06/91	12/10/91 12/31/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3200 0.1500 0.1500	C C C	0.2000 0.0600 0.0600	mg/kg MG/KG MG/KG
IC05S0127	IC05SS012701N	0.00	12/06/91	12/10/91 12/31/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2600 0.1200	C C	0.2000 0.0600	mg/kg MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0127	IC05SS012701N	0.00	12/06/91	12/31/91	SW8080	Total PCB	0.1200 C		0.0600	MG/KG
IC05S0128	IC05SS012801N	0.00	12/06/91	12/10/91	FPCB	PCB-1260	0.4000		0.2000	mg/kg
				01/01/92	SW8080	PCB-1260	0.3100 C		0.2000	MG/KG
						Total PCB	0.3100 C		0.2000	MG/KG
IC05S0130	IC05SS013001N	0.00	12/06/91	12/10/91	FPCB	PCB-1260	0.7970		0.2000	mg/kg
				12/31/91	SW8080	PCB-1260	0.5900 C		0.3000	MG/KG
						Total PCB	0.5900 C		0.3000	MG/KG
IC05S0131	IC05SS013101N	0.00	12/06/91	12/10/91	FPCB	PCB-1260	0.3010		0.2000	mg/kg
				01/01/92	SW8080	PCB-1260	0.1200 C		0.0700	MG/KG
						Total PCB	0.1200 C		0.0700	MG/KG
IC05S0149	IC05SS014901N	0.00	12/09/91	12/10/91	FPCB	PCB-1260	0.9990		0.2000	mg/kg
				12/31/91	SW8080	PCB-1260	1.5000 C		0.3000	MG/KG
						Total PCB	1.5000 C		0.3000	MG/KG
IC05S0150	IC05SS015001N	0.00	12/09/91	12/10/91	FPCB	PCB-1260	1.2400		0.2000	mg/kg
				12/31/91	SW8080	PCB-1260	1.4000 C		0.7000	MG/KG
						Total PCB	1.4000 C		0.7000	MG/KG
IC05S0151	IC05SS015101N	0.00	12/09/91	12/10/91	FPCB	PCB-1260	0.3050		0.2000	mg/kg
				12/31/91	SW8080	PCB-1260	0.2000 C		0.2000	MG/KG
						Total PCB	0.2000 C		0.2000	MG/KG
IC05S0152	IC05SS015201N	0.00	12/09/91	12/10/91	FPCB	PCB-1260	1.1000		0.2000	mg/kg
				01/01/92	SW8080	PCB-1260	0.2500 C		0.0700	MG/KG
						Total PCB	0.2500 C		0.0700	MG/KG
IC05S0161	IC05SS016101N	0.00	12/09/91	12/31/91	SW8080	PCB-1260	0.2200 C		0.2000	MG/KG
						Total PCB	0.2200 C		0.2000	MG/KG

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0162	IC05SS016201N	0.00	12/09/91	12/31/91	SW8080	PCB-1260 Total PCB	1.2000 C 1.2000 C		0.3000 0.3000	MG/KG MG/KG
IC05S0163	IC05SS016301N	0.00	12/09/91	12/31/91	SW8080	PCB-1260 Total PCB	1.6000 C 1.6000 C		0.3000 0.3000	MG/KG MG/KG
IC05S0176	IC05SS017601N	0.00	12/10/91	12/11/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2100 0.0430 C 0.0430 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0178	IC05SS017801N	0.00	12/10/91	12/11/91 12/31/91	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6800 0.9200 C 0.9200 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0181	IC05SS018101N	0.00	12/10/91	12/12/91	FPCB	PCB-1260	0.2200		0.2000	mg/kg
IC05S0182	IC05SS018201N	0.00	12/10/91	12/11/91	FPCB	PCB-1260	0.3200		0.2000	mg/kg
IC05S0183	IC05SS018301N	0.00	12/10/91	12/12/91	FPCB	PCB-1260	0.3000		0.2000	mg/kg
IC05S0184	IC05SS018401N	0.00	12/10/91	12/12/91	FPCB	PCB-1260	0.4200		0.2000	mg/kg
IC05S0185	IC05SS018501N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9100 Q 0.4900 C 0.4900 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0186	IC05SS018601N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6900 Q 0.4000 C 0.4000 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0187	IC05SS018701N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 Q 0.4800 C 0.4800 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0188	IC05SS018801N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5100 Q 0.1800 C 0.1800 C	E	0.2000 mg/kg 0.0300 MG/KG 0.0300 MG/KG	
IC05S0189	IC05SS018901N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5200 Q 0.4200 C 0.4200 C	E	0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0190	IC05SS019001N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2300 Q 1.2000 C 1.2000 C	E	0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0191	IC05SS019101N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2600 Q 0.2200 C 0.2200 C	E	0.2000 mg/kg 0.0600 MG/KG 0.0600 MG/KG	
IC05S0192	IC05SS019201N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 Q 0.2000 C 0.2000 C	E	0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0193	IC05SS019301N	0.00	12/11/91	12/13/91	FPCB	PCB-1260	0.2400 Q	E	0.2000 mg/kg	
IC05S0194	IC05SS019401N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5500 Q 0.1100 C 0.1100 C	E	0.2000 mg/kg 0.0300 MG/KG 0.0300 MG/KG	
IC05S0202	IC05SS020201N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5400 Q 0.4300 C 0.4300 C	E	0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0205	IC05SS020501N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4000 Q 0.2700 C 0.2700 C	E	0.2000 mg/kg 0.0700 MG/KG 0.0700 MG/KG	



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0206	IC05SS020601N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4600 Q 0.3500 C 0.3500 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0208	IC05SS020801N	0.00	12/11/91	12/13/91	FPCB	PCB-1260	0.5500 Q	E	0.2000	mg/kg
IC05S0210	IC05SS021001N	0.00	12/11/91	12/13/91 01/06/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3000 Q 0.2700 C 0.2700 C	E	0.2000 0.0600 0.0600	mg/kg MG/KG MG/KG
IC05S0211	IC05SS021101N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.8000 Q 1.9000 C 1.9000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0212	IC05SS021201N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.5000 Q 1.4000 C 1.4000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0213	IC05SS021301N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.1000 Q 1.3000 C 1.3000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0214	IC05SS021401N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.8000 Q 0.9400 C 0.9400 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0215	IC05SS021501N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.2000 Q 1.6000 C 1.6000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0217	IC05SS021701N	0.00	12/11/91	12/16/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5300 Q 0.6400 C 0.6400 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG

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MCCLELLAN QUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0219	IC05SS021901N	0.00	12/11/91	12/13/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2200 Q 0.1200 C 0.1200 C	E	0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0221	IC05SS022101N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5800 Q 0.5300 C 0.5300 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0222	IC05SS022201N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.4000 Q 1.2000 C 1.2000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0223	IC05SS022301N	0.00	12/11/91	12/13/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	5.4000 Q 4.6000 C 4.6000 C	E	0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0224	IC05SS022401N	0.00	12/11/91	12/13/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2800 Q 0.1700 C 0.1700 C	E	0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0225	IC05SS022501N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.8100 Q 0.6700 C 0.6700 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0226	IC05SS022601N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.7000 Q 1.9000 C 1.9000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0227	IC05SS022701N	0.00	12/11/91	12/13/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	5.9000 Q 4.9000 C 4.9000 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0234	IC05SS023401N	0.00	12/11/91	12/13/91	FPCB	PCB-1260	1.3000 Q	E	0.2000	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

BOUING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0234	IC05SS023401N	0.00	12/11/91	01/01/92	SW8080	PCB-1260 Total PCB	0.8200 C 0.8200 C		0.3000 0.3000	MG/KG MG/KG
IC05S0235	IC05SS023501N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 Q 0.7700 C 0.7700 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0236	IC05SS023601N	0.00	12/11/91	12/16/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2700 Q 0.2800 C 0.2800 C	E	0.2000 0.0700 0.0700	mg/kg MG/KG MG/KG
IC05S0238	IC05SS023801N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 Q 1.6000 C 1.6000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0239	IC05SS023901N	0.00	12/11/91	12/13/91 01/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6200 Q 0.5100 C 0.5100 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0240	IC05SS024001N	0.00	12/11/91	12/13/91 01/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2700 Q 0.2700 C 0.2700 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0252	IC05SS025201N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 0.4700 C 0.4700 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0269	IC05SS026901N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 1.4000 C 1.4000 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0270	IC05SS027001N	0.00	12/12/91	12/16/91 01/05/92	FPCB SW8080	PCB-1260 PCB-1260	0.2000 0.1600 C		0.2000 0.0300	mg/kg MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0270	IC05SS027001N	0.00	12/12/91	01/05/92	SW8080	Total PCB	0.1600	C	0.0300	MG/KG
IC05S0271	IC05SS027101N	0.00	12/12/91	12/16/91	FPCB	PCB-1260	1.6000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	0.9900	C	0.2000	MG/KG
						Total PCB	0.9900	C	0.2000	MG/KG
IC05S0281	IC05SS028101N	0.00	12/12/91	12/16/91	FPCB	PCB-1260	1.9000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	0.7700	C	0.3000	MG/KG
						Total PCB	0.7700	C	0.3000	MG/KG
IC05S0282	IC05SS028201N	0.00	12/12/91	12/16/91	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	0.8600	C	0.3000	MG/KG
						Total PCB	0.8600	C	0.3000	MG/KG
IC05S0283	IC05SS028301N	0.00	12/12/91	12/17/91	FPCB	PCB-1260	0.3400		0.2000	mg/kg
				01/06/92	SW8080	PCB-1260	0.1900	C	0.0700	MG/KG
						Total PCB	0.1900	C	0.0700	MG/KG
IC05S0284	IC05SS028401N	0.00	12/12/91	12/16/91	FPCB	PCB-1260	0.8900		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	1.0000	C	0.3000	MG/KG
						Total PCB	1.0000	C	0.3000	MG/KG
IC05S0286	IC05SS028601N	0.00	12/12/91	12/16/91	FPCB	PCB-1260	1.7000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	1.7000	C	0.3000	MG/KG
						Total PCB	1.7000	C	0.3000	MG/KG
IC05S0287	IC05SS028701N	0.00	12/12/91	12/17/91	FPCB	PCB-1260	0.3800		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	0.4600	C	0.3000	MG/KG
						Total PCB	0.4600	C	0.3000	MG/KG
IC05S0288	IC05SS028801N	0.00	12/12/91	12/16/91	FPCB	PCB-1260	0.3700		0.2000	mg/kg
				01/06/92	SW8080	PCB-1260	0.3200	C	0.0700	MG/KG
						Total PCB	0.3200	C	0.0700	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0289	IC05SS028901N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.6000 3.7000 C 3.7000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0292	IC05SS029201N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9100 1.6000 C 1.6000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0293	IC05SS029301N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.0000 1.9000 C 1.9000 C		0.2000 mg/kg 0.4000 MG/KG 0.4000 MG/KG	
IC05S0294	IC05SS029401N	0.00	12/12/91	12/16/91 01/06/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3200 0.2000 C 0.2000 C		0.2000 mg/kg 0.0700 MG/KG 0.0700 MG/KG	
IC05S0301	IC05SS030101N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3900 0.5800 C 0.5800 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0302	IC05SS030201N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4100 0.6600 C 0.6600 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0303	IC05SS030301N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 1.6000 C 1.6000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0304	IC05SS030401N	0.00	12/12/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.4000 1.4000 C 1.4000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0305	IC05SS030501N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	3.6000		0.2000 mg/kg	

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0305	IC05SS030501N	0.00	12/13/91	01/03/92	SW8080	PCB-1260 Total PCB	3.3000 C 3.3000 C	E E	0.3000 0.3000	MG/KG MG/KG
IC05S0306	IC05SS030601N	0.00	12/13/91	12/17/91 01/25/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	7.5000 4.9000 C 4.9000 C		0.2000 0.7000 6.0000	mg/kg mg/kg mg/kg
IC05S0307	IC05SS030701N	0.00	12/13/91	12/17/91 01/25/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	9.7000 5.9000 C 5.9000 C		0.2000 0.7000 6.0000	mg/kg mg/kg mg/kg
IC05S0309	IC05SS030901N	0.00	12/13/91	12/17/91 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.6000 1.4000 C 1.4000 C		0.2000 0.3000 3.0000	mg/kg mg/kg mg/kg
IC05S0310	IC05SS031001N	0.00	12/13/91	12/16/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.4000 1.4000 C 1.4000 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0311	IC05SS031101N	0.00	12/13/91	12/16/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.4000 0.9300 C 0.9300 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0312	IC05SS031201N	0.00	12/13/91	12/16/91 01/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 0.9100 C 0.9100 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0313	IC05SS031301N	0.00	12/13/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2700 0.1300 C 0.1300 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0314	IC05SS031401N	0.00	12/13/91	12/16/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260	0.4000 0.3400 C		0.2000 0.2000	mg/kg MG/KG

Printed on Monday, May 17, 1993, at 13:40:51

MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0314	IC05SS031401N	0.00	12/13/91	01/04/92	SW8080	Total PCB	0.3400	C	0.2000	MG/KG
IC05S0315	IC05SS031501N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	2.7000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	2.0000	C	0.3000	MG/KG
						Total PCB	2.0000	C	0.3000	MG/KG
IC05S0316	IC05SS031601N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	0.9800	C	0.3000	MG/KG
						Total PCB	0.9800	C	0.3000	MG/KG
IC05S0317	IC05SS031701N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	2.1000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	2.2000	C	0.3000	MG/KG
						Total PCB	2.2000	C	0.3000	MG/KG
IC05S0318	IC05SS031801N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	2.4000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	1.7000	C	0.3000	MG/KG
						Total PCB	1.7000	C	0.3000	MG/KG
IC05S0319	IC05SS031901N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	1.3000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	1.2000	C	0.3000	MG/KG
						Total PCB	1.2000	C	0.3000	MG/KG
IC05S0320	IC05SS032001N	0.00	12/13/91	12/16/91	FPCB	PCB-1260	2.1000		0.2000	mg/kg
				01/04/92	SW8080	PCB-1260	1.8000	C	0.3000	MG/KG
						Total PCB	1.8000	C	0.3000	MG/KG
IC05S0321	IC05SS032101N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S0322	IC05SS032201N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	3.4000		0.2000	mg/kg
IC05S0323	IC05SS032301N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05S0324	IC05SS032401N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	1.9000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0325	IC05SS032501N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	4.2000		0.2000	mg/kg
IC05S0326	IC05SS032601N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	6.4000		0.2000	mg/kg
IC05S0327	IC05SS032701N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	0.5500		0.2000	mg/kg
IC05S0328	IC05SS032801N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	4.2000		0.2000	mg/kg
IC05S0329	IC05SS032901N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	0.7600		0.2000	mg/kg
			01/05/92	SW8080	PCB-1260	0.9400	C		0.3000	mg/kg
					Total PCB	0.9400	C		3.0000	mg/kg
IC05S0330	IC05SS033001N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	16.0000		0.2000	mg/kg
IC05S0331	IC05SS033101N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	2.0000		0.2000	mg/kg
			01/05/92	SW8080	PCB-1260	2.3000	C		0.3000	mg/kg
					Total PCB	2.3000	C		3.0000	mg/kg
IC05S0332	IC05SS033201N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	1.1000		0.2000	mg/kg
			01/05/92	SW8080	PCB-1260	1.1000	C		0.3000	mg/kg
					Total PCB	1.1000	C		3.0000	mg/kg
IC05S0333	IC05SS033301N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	0.2300		0.2000	mg/kg
			01/05/92	SW8080	PCB-1260	1.1000	C		0.3000	mg/kg
					Total PCB	1.1000	C		3.0000	mg/kg
IC05S0334	IC05SS033401N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	0.9300		0.2000	mg/kg
			01/05/92	SW8080	PCB-1260	1.1000	C		0.3000	mg/kg
					Total PCB	1.1000	C		3.0000	mg/kg
IC05S0335	IC05SS033501N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	0.6900		0.2000	mg/kg
			01/05/92	SW8080	PCB-1260	0.5000	C		0.3000	mg/kg
					Total PCB	0.5000	C		3.0000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0342	IC05SS034201N	0.00	12/13/91	12/17/91 01/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5200 0.4200 C 0.4200 C		0.2000 0.3000 3.0000	mg/kg mg/kg mg/kg
IC05S0343	IC05SS034301N	0.00	12/13/91	12/17/91 01/25/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 0.9500 C 0.9500 C		0.2000 0.3000 3.0000	mg/kg mg/kg mg/kg
IC05S0344	IC05SS034401N	0.00	12/13/91	12/17/91 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3000 0.1700 C 0.1700 C	E E	0.2000 0.0300 0.3000	mg/kg mg/kg mg/kg
IC05S0345	IC05SS034501N	0.00	12/13/91	12/17/91 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2000 0.1600 C 0.1600 C		0.2000 0.0300 0.3000	mg/kg mg/kg mg/kg
IC05S0350	IC05SS035001N	0.00	12/13/91	12/17/91 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2000 0.1000 C 0.1000 C		0.2000 0.0300 0.3000	mg/kg mg/kg mg/kg
IC05S0351	IC05SS035101N	0.00	12/13/91	12/17/91 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3100 0.2600 C 0.2600 C		0.2000 0.0700 0.7000	mg/kg mg/kg mg/kg
IC05S0352	IC05SS035201N	0.00	12/13/91	01/24/92	SW8080	PCB-1260 Total PCB	0.0400 C 0.0400 C		0.0300 0.3000	mg/kg mg/kg
IC05S0353	IC05SS035301N	0.00	12/13/91	12/17/91 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4700 0.4700 C 0.4700 C		0.2000 0.2000 2.0000	mg/kg mg/kg mg/kg
IC05S0354	IC05SS035401N	0.00	12/13/91	12/17/91 01/05/92	FPCB SW8080	PCB-1260 PCB-1260	0.5900 0.6200 C		0.2000 0.3000	mg/kg mg/kg

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MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0354	IC05SS035401N	0.00	12/13/91	01/05/92	SW8080	Total PCB	0.6200	C	3.0000	mg/kg
IC05S0355	IC05SS035501N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/05/92	SW8080	PCB-1260	1.2000	C	0.3000	mg/kg
						Total PCB	1.2000	C	3.0000	mg/kg
IC05S0356	IC05SS035601N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	0.5800		0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	0.2600	C	0.0300	mg/kg
						Total PCB	0.2600	C	0.3000	mg/kg
IC05S0357	IC05SS035701N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	0.9600		0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	0.4100	C	0.2000	mg/kg
						Total PCB	0.4100	C	2.0000	mg/kg
IC05S0358	IC05SS035801N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	38.0000		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	150.0000	C	23.0000	mg/kg
						Total PCB	150.0000	C	230.0000	mg/kg
IC05S0359	IC05SS035901N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S0360	IC05SS036001N	0.00	12/13/91	12/18/91	FPCB	PCB-1260	28.0000		0.2000	mg/kg
IC05S0361	IC05SS036101N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	6.3000		0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	3.8000	C	0.7000	mg/kg
						Total PCB	3.8000	C	6.0000	mg/kg
IC05S0362	IC05SS036201N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	10.0000		0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	8.6000	C	0.7000	mg/kg
						Total PCB	8.6000	C	6.0000	mg/kg
IC05S0363	IC05SS036301N	0.00	12/13/91	12/17/91	FPCB	PCB-1260	4.6000		0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	3.6000	C	0.7000	mg/kg
						Total PCB	3.6000	C	6.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0364	IC05SS036401N	0.00	12/13/91	12/17/91 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.2000 0.9300 C 0.9300 C		0.2000 0.3000 3.0000	mg/kg mg/kg mg/kg
IC05S0365	IC05SS036501N	0.00	12/16/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	5.1000 3.5000 C 3.5000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0366	IC05SS036601N	0.00	12/16/91	12/19/91 01/06/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3500 0.3700 C 0.3700 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0367	IC05SS036701N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.7000 0.2400 C 0.2400 C	E E	0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0368	IC05SS036801N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.4000 0.1700 C 0.1700 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0369	IC05SS036901N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S0370	IC05SS037001N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	4.6000 2.4000 C 2.4000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0371	IC05SS037101N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7900 0.3200 C 0.3200 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0372	IC05SS037201N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7000 0.4700 C 0.4700 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0373	IC05SS037301N	0.00	12/16/91	12/17/91 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 0.4900 C 0.4900 C		0.2000 0.3000 3.0000	mg/kg mg/kg mg/kg
IC05S0374	IC05SS037401N	0.00	12/16/91	12/17/91	FPCB	PCB-1260	3.5000		0.2000	mg/kg
IC05S0375	IC05SS037501N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	7.1000 2.0000 C 2.0000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0376	IC05SS037601N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	5.6000 7.3000 C 7.3000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0377	IC05SS037701N	0.00	12/16/91	12/18/91 01/10/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	18.0000 2.2000 C 2.2000 C		0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0378	IC05SS037801N	0.00	12/16/91	12/18/91 01/10/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	13.0000 12.0000 C 12.0000 C		0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0379	IC05SS037901N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	18.0000 13.0000 C 13.0000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0380	IC05SS038001N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	22.0000		0.2000	mg/kg
IC05S0381	IC05SS038101N	0.00	12/16/91	12/18/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.2000 2.4000 C 2.4000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0382	IC05SS038201N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	1.2000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - QU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0382	IC05SS038201N	0.00	12/16/91	01/08/92	SW8080	PCB-1260 Total PCB	0.8500 C 0.8500 C		0.2000 0.2000	mg/kg mg/kg
IC05S0383	IC05SS038301N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	2.3000		0.2000	mg/kg
				01/08/92	SW8080	PCB-1260	1.7000 C		0.2000	mg/kg
						Total PCB	1.7000 C		0.2000	mg/kg
IC05S0386	IC05SS038601N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	24.0000		0.2000	mg/kg
IC05S0393	IC05SS039301N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S0394	IC05SS039401N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.2100		0.2000	mg/kg
IC05S0395	IC05SS039501N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.8200		0.2000	mg/kg
IC05S0396	IC05SS039601N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.3300		0.2000	mg/kg
IC05S0400	IC05SS040001N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.9600		0.2000	mg/kg
IC05S0401	IC05SS040101N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.2100		0.2000	mg/kg
IC05S0403	IC05SS040301N	0.00	12/16/91	12/18/91	FPCB	PCB-1260	0.2200		0.2000	mg/kg
IC05S0405	IC05SS040501N	0.00	12/17/91	12/19/91	FPCB	PCB-1260	0.2500		0.2000	mg/kg
				01/07/92	SW8080	PCB-1260	0.1200 C		0.0700	mg/kg
						Total PCB	0.1200 C		0.0700	mg/kg
IC05S0406	IC05SS040601N	0.00	12/17/91	12/19/91	FPCB	PCB-1260	0.4700		0.2000	mg/kg
				01/06/92	SW8080	PCB-1260	0.2000 C		0.2000	mg/kg
						Total PCB	0.2000 C		0.2000	mg/kg
IC05S0407	IC05SS040701N	0.00	12/17/91	12/19/91	FPCB	PCB-1260	0.3500		0.2000	mg/kg
				01/07/92	SW8080	PCB-1260	0.2300 C		0.0700	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0407	IC05SS040701N	0.00	12/17/91	01/07/92	SW8080	Total PCB	0.2300	C	0.0700	mg/kg
IC05S0409	IC05SS040901N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5800 0.2600 0.2600	C C C	0.2000 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S0421	IC05SS042101N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2200 0.2200 0.2200	C C C	0.2000 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S0422	IC05SS042201N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2000 0.1300 0.1300	C G G	0.2000 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S0423	IC05SS042301N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.7000 0.4400 0.4400	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0424	IC05SS042401N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2800 0.1900 0.1900	C C C	0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0425	IC05SS042501N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	16.0000 5.1000 5.1000	C C C	0.2000 0.6000 6.0000	mg/kg mg/kg mg/kg
IC05S0426	IC05SS042601N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.1000 0.6000 0.6000	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0427	IC05SS042701N	0.00	12/17/91	12/20/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	27.0000 65.0000 65.0000	C C C	0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0428	IC05SS042801N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	22.0000 5.6000 5.6000		0.2000 0.6000 0.6000	mg/kg mg/kg mg/kg
IC05S0431	IC05SS043101N	0.00	12/17/91	12/20/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	19.0000 7.5000 7.5000		0.2000 0.4000 0.4000	mg/kg mg/kg mg/kg
IC05S0432	IC05SS043201N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	7.3000 4.7000 4.7000		0.2000 0.4000 0.4000	mg/kg mg/kg mg/kg
IC05S0433	IC05SS043301N	0.00	12/17/91	12/19/91 01/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.1000 2.3000 2.3000		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0434	IC05SS043401N	0.00	12/17/91	12/19/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7100 0.6200 0.6200		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0441	IC05SS044101N	0.00	12/18/91	12/19/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2600 0.2100 0.2100		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0443	IC05SS044301N	0.00	12/18/91	12/19/91 01/08/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.7000 2.0000 2.0000		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0444	IC05SS044401N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	9.3000		0.2000	mg/kg
IC05S0445	IC05SS044501N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	26.0000		0.2000	mg/kg
IC05S0446	IC05SS044601N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	6.5000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0447	IC05SS044701N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	11.0000		0.2000	mg/kg
IC05S0448	IC05SS044801N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	6.4000		0.2000	mg/kg
IC05S0449	IC05SS044901N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	4.0000		0.2000	mg/kg
IC05S0450	IC05SS045001N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	4.0000		0.2000	mg/kg
IC05S0451	IC05SS045101N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	1.2000		0.2000	mg/kg
IC05S0452	IC05SS045201N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	5.7000		0.2000	mg/kg
IC05S0453	IC05SS045301N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	1.2000		0.2000	mg/kg
IC05S0454	IC05SS045401N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	1.6000		0.2000	mg/kg
IC05S0455	IC05SS045501N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	1.6000		0.2000	mg/kg
IC05S0456	IC05SS045601N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	3.5000		0.2000	mg/kg
IC05S0457	IC05SS045701N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	1.5000		0.2000	mg/kg
IC05S0458	IC05SS045801N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	9.4000		0.2000	mg/kg
IC05S0459	IC05SS045901N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	2.0000		0.2000	mg/kg
IC05S0460	IC05SS046001N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	11.0000		0.2000	mg/kg
IC05S0461	IC05SS046101N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	1.6000		0.2000	mg/kg
IC05S0462	IC05SS046201N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	12.0000		0.2000	mg/kg
IC05S0463	IC05SS046301N	0.00	12/18/91	12/20/91	FPC8	PC8-1260	12.0000		0.2000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0464	IC05SS046401N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	6.7000		0.2000	mg/kg
IC05S0465	IC05SS046501N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S0467	IC05SS046701N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	0.2100		0.2000	mg/kg
IC05S0468	IC05SS046801N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	0.3400		0.2000	mg/kg
IC05S0469	IC05SS046901N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	0.2200		0.2000	mg/kg
IC05S0480	IC05SS048001N	0.00	12/18/91	12/20/91	FPCB	PCB-1260	0.5700		0.2000	mg/kg
IC05S0481	IC05SS048101N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S0483	IC05SS048301N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S0485	IC05SS048501N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S0486	IC05SS048601N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	2.6000		0.2000	mg/kg
IC05S0488	IC05SS048801N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S0489	IC05SS048901N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.7000		0.2000	mg/kg
IC05S0490	IC05SS049001N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.2000		0.2000	mg/kg
IC05S0491	IC05SS049101N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.6100		0.2000	mg/kg
IC05S0492	IC05SS049201N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	0.4300	Q E	0.2000	mg/kg
IC05S0494	IC05SS049401N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S0495	IC05SS049501N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.7000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0496	IC05SS04960iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S0498	IC05SS04980iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S0500	IC05SS05000iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.8600		0.2000	mg/kg
IC05S0501	IC05SS05010iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.0000		0.2000	mg/kg
IC05S0502	IC05SS05020iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.5500		0.2000	mg/kg
IC05S0503	IC05SS05030iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	2.6000		0.2000	mg/kg
IC05S0504	IC05SS05040iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	9.5000		0.2000	mg/kg
IC05S0505	IC05SS05050iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.6800		0.2000	mg/kg
IC05S0506	IC05SS05060iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	2.1000		0.2000	mg/kg
IC05S0508	IC05SS05080iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.8400		0.2000	mg/kg
IC05S0509	IC05SS05090iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	3.2000		0.2000	mg/kg
IC05S0510	IC05SS05100iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	3.0000		0.2000	mg/kg
IC05S0511	IC05SS05110iN	0.00	12/19/91	12/23/91	FPCB	PCB-1260	0.5600		0.2000	mg/kg
IC05S0512	IC05SS05120iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.8000		0.2000	mg/kg
IC05S0514	IC05SS05140iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.6000		0.2000	mg/kg
IC05S0515	IC05SS05150iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	0.3700		0.2000	mg/kg
IC05S0516	IC05SS05160iN	0.00	12/19/91	12/20/91	FPCB	PCB-1260	2.2000		0.2000	mg/kg

## MCCLELLAN DUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0518	IC05SS051801N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	1.7000		0.2000	mg/kg
IC05S0519	IC05SS051901N	0.00	12/19/91	12/20/91	FPCB	PCB-1260	3.0000		0.2000	mg/kg
IC05S0520	IC05SS052001N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	1.5000	Q	0.2000	mg/kg
IC05S0521	IC05SS052101N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	3.2000	Q	0.2000	mg/kg
IC05S0522	IC05SS052201N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	1.8000		0.2000	mg/kg
IC05S0523	IC05SS052301N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	0.7100	Q	0.2000	mg/kg
IC05S0524	IC05SS052401N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	2.3000		0.2000	mg/kg
IC05S0525	IC05SS052501N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	2.1000	Q	0.2000	mg/kg
IC05S0527	IC05SS052701N	0.00	12/19/91	12/23/91	FPCB	PCB-1260	0.5700	Q	0.2000	mg/kg
IC05S0529	IC05SS052901N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	0.3400		0.2000	mg/kg
IC05S0530	IC05SS053001N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	0.4200		0.2000	mg/kg
IC05S0531	IC05SS053101N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05S0532	IC05SS053201N	0.00	12/20/91	12/30/91	FPCB	PCB-1260	0.4500		0.2000	mg/kg
IC05S0533	IC05SS053301N	0.00	12/20/91	12/30/91	FPCB	PCB-1260	2.6000		0.2000	mg/kg
IC05S0534	IC05SS053401N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	0.9000		0.2000	mg/kg
IC05S0535	IC05SS053501N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	1.8000		0.2000	mg/kg
IC05S0536	IC05SS053601N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0537	IC05SS053701N	0.00	12/20/91	12/30/91	FPCB	PCB-1260	7.4000		0.2000	mg/kg
IC05S0538	IC05SS053801N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S0539	IC05SS053901N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	0.8800		0.2000	mg/kg
IC05S0540	IC05SS054001N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	0.7300		0.2000	mg/kg
IC05S0541	IC05SS054101N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.3000		0.2000	mg/kg
IC05S0542	IC05SS054201N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	1.2000		0.2000	mg/kg
IC05S0543	IC05SS054301N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S0544	IC05SS054401N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S0545	IC05SS054501N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.2000		0.2000	mg/kg
IC05S0546	IC05SS054601N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.8000		0.2000	mg/kg
IC05S0547	IC05SS054701N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.2000		0.2000	mg/kg
IC05S0548	IC05SS054801N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S0549	IC05SS054901N	0.00	12/20/91	12/30/91	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S0550	IC05SS055001N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	0.4600		0.2000	mg/kg
IC05S0551	IC05SS055101N	0.00	12/20/91	12/30/91	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S0552	IC05SS055201N	0.00	12/20/91	12/26/91	FPCB	PCB-1260	2.8000		0.2000	mg/kg
IC05S0553	IC05SS055301N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.8700	Q E	0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0554	IC05SS055401N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.5000 Q	E	0.2000	mg/kg
IC05S0556	IC05SS055601N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.6100 Q	E	0.2000	mg/kg
IC05S0557	IC05SS055701N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	2.2000		0.2000	mg/kg
IC05S0558	IC05SS055801N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.2200 Q	E	0.2000	mg/kg
IC05S0559	IC05SS055901N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.9000		0.2000	mg/kg
IC05S0561	IC05SS056101N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.6900		0.2000	mg/kg
IC05S0562	IC05SS056201N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	1.1000 Q	E	0.2000	mg/kg
IC05S0563	IC05SS056301N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	1.7000		0.2000	mg/kg
IC05S0564	IC05SS056401N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	1.1000 Q	E	0.2000	mg/kg
IC05S0565	IC05SS056501N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S0566	IC05SS056601N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.9200		0.2000	mg/kg
IC05S0567	IC05SS056701N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.9000 Q	E	0.2000	mg/kg
IC05S0568	IC05SS056801N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.7900 Q	E	0.2000	mg/kg
IC05S0569	IC05SS056901N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	1.2000		0.2000	mg/kg
IC05S0570	IC05SS057001N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	1.8000 Q	E	0.2000	mg/kg
IC05S0571	IC05SS057101N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.4700 Q	E	0.2000	mg/kg
IC05S0572	IC05SS057201N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	2.7000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0574	IC05SS057401N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.6100 Q	E	0.2000	mg/kg
IC05S0575	IC05SS057501N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	0.5000 Q	E	0.2000	mg/kg
IC05S0576	IC05SS057601N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	5.7000		0.2000	mg/kg
IC05S0577	IC05SS057701N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	7.6000		0.2000	mg/kg
IC05S0578	IC05SS057801N	0.00	12/20/91	12/23/91	FPCB	PCB-1260	4.7000 Q	E	0.2000	mg/kg
IC05S0579	IC05SS057901N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	9.5000		0.2000	mg/kg
				01/15/92	SW8080	PCB-1260	5.4000 C		2.0000	MG/KG
						Total PCB	5.4000 C		2.0000	MG/KG
IC05S0580	IC05SS058001N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	11.0000		0.2000	mg/kg
				01/13/92	SW8080	PCB-1260	2.2000 C		0.7000	MG/KG
						Total PCB	2.2000 C		0.7000	MG/KG
IC05S0581	IC05SS058101N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	7.2000		0.20 J	mg/kg
				01/15/92	SW8080	PCB-1260	17.0000 C		0.7000	MG/KG
						Total PCB	17.0000 C		0.7000	MG/KG
IC05S0582	IC05SS058201N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	2.3000		0.2000	mg/kg
				01/13/92	SW8080	PCB-1260	2.0000 C		0.2000	MG/KG
						Total PCB	2.0000 C		0.2000	MG/KG
IC05S0583	IC05SS058301N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	3.1000		0.2000	mg/kg
				01/15/92	SW8080	PCB-1260	3.8000 C		0.2000	MG/KG
						Total PCB	3.8000 C		0.2000	MG/KG
IC05S0584	IC05SS058401N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	1.8000		0.2000	mg/kg
				01/15/92	SW8080	PCB-1260	1.3000 C		0.2000	MG/KG
						Total PCB	1.3000 C		0.2000	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0585	IC05SS058501N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 2.2000 C 2.2000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0586	IC05SS058601N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 1.4000 C 1.4000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0587	IC05SS058701N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 3.2000 C 3.2000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0588	IC05SS058801N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4600 1.1000 C 1.1000 C		0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0589	IC05SS058901N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 1.1000 C 1.1000 C		0.2000 mg/kg 0.3000 MG/KG 0.3000 MG/KG	
IC05S0590	IC05SS059001N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5800 0.5200 C 0.5200 C		0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0591	IC05SS059101N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 1.0000 C 1.0000 C		0.2000 mg/kg 0.0300 MG/KG 0.0300 MG/KG	
IC05SC592	IC05SS059201N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3100 0.4600 C 0.4600 C		0.2000 mg/kg 0.0600 MG/KG 0.0600 MG/KG	
IC05S0593	IC05SS059301N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	0.3900		0.2000 mg/kg	

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

87RI-6	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0593	IC05S059301N	0.00	12/26/91	01/15/92	SW8080	PCB-1260 Total PCB	0.9900 C 0.9900 C		0.2000 0.2000	MG/KG MG/KG
IC05S0594	IC05SS059401N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2500 0.3200 C 0.3200 C		0.2000 0.0600 0.0600	mg/kg MG/KG MG/KG
IC05S0595	IC05SS059501N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 0.6700 C 0.6700 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0596	IC05SS059601N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3100 0.6100 C 0.6100 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0597	IC05SS059701N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7100 0.6000 C 0.6000 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0599	IC05SS059901N	0.00	12/26/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.8400 0.3900 C 0.3900 C		0.2000 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S0600	IC05SS060001N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5700 0.5400 C 0.5400 C	E E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0601	IC05SS060101N	0.00	12/26/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3500 0.3900 C 0.3900 C		0.2000 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S0602	IC05SS060201N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260	1.9000 1.5000 C		0.2000 0.3000	mg/kg MG/KG



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0602	IC05SS060201N	0.00	12/26/91	01/13/92	SW8080	Total PCB	1.5600	C	0.3000	MG/KG
IC05S0603	IC05SS060301N	0.00	12/26/91	12/30/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.8000 0.8400 0.8400	C C C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0604	IC05SS060401N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6000 0.3700 0.3700	C C C	0.2000 0.0600 0.0600	mg/kg MG/KG MG/KG
IC05S0606	IC05SS060601N	0.00	12/26/91	12/30/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3400 0.2900 0.2900	C C C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0607	IC05SS060701N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	8.2000 3.3000 3.3000	C C C	0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0608	IC05SS060801N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.8100 2.1000 2.1000	C C C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0609	IC05SS060901N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.6000 2.1000 2.1000	C C C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0610	IC05SS061001N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 1.1000 1.1000	C C C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0611	IC05SS061101N	0.00	12/26/91	12/30/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.2000 3.8000 3.8000	C C C	0.2000 0.7000 0.7000	mg/kg MG/KG MG/KG

## MCCLELLAN OUB KI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0612	IC05SS061201N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB 1260 Total PCB	0.6500 1.3000 1.3000	C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0613	IC05SS061301N	0.00	12/26/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	4.9000 110.0000 110.0000	C	0.2000 32.0000 32.0000	mg/kg mg/kg mg/kg
IC05S0614	IC05SS061401N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9300 2.1000 2.1000	C	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0615	IC05SS061501N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7800 1.8000 1.8000	C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0618	IC05SS061801N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6300 1.6000 1.6000	C	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0619	IC05SS061901N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2500 3.8000 3.8000	C	0.2000 0.7000 0.7000	mg/kg MG/KG MG/KG
IC05S0620	IC05SS062001N	0.00	12/26/91	12/30/91 01/13/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	6.5000 9.8000 9.8000	C	0.2000 0.8000 0.8000	mg/kg MG/KG MG/KG
IC05S0621	IC05SS062101N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3500 9.1000 9.1000	C	0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0622	IC05SS062201N	0.00	12/26/91	12/30/91	FPCB	PCB-1260	3.1000		0.2000	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0622	IC05SS062201N	0.00	12/26/91	01/13/92	SW8080	PCB-1260 Total PCB	1.3000 1.3000 C		0.3000 0.3000	MG/KG MG/KG
IC05S0623	IC05SS062301N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.2000 0.5900 C 0.5900 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0624	IC05SS062401N	0.00	12/26/91	12/30/91 01/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6500 0.6400 C 0.6400 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0625	IC05SS062501N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4600 0.5300 C 0.5300 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0626	IC05SS062601N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 0.8000 C 0.8000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0627	IC05SS062701N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5700 0.4400 C 0.4400 C		0.2600 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S0628	IC05SS062801N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2200 0.9700 G 0.9700 G		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0629	IC05SS062901N	0.00	12/30/91	12/30/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.6000 0.5400 C 0.5400 C		0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0630	IC05SS063001N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260	2.3000 0.7500 C		0.2000 0.0700	mg/kg mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0630	IC05SS063001N	0.00	12/30/91	01/17/92	SW8080	Total PCB	0.7500 C		0.0700	mg/kg
IC05S0631	IC05SS063101N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
					SW8080	PCB-1260	0.4000 C		0.0300	mg/kg
						Total PCB	0.4000 C		0.0300	mg/kg
IC05S0634	IC05SS063401N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
					SW8080	PCB-1260	0.5100 C		0.0300	mg/kg
						Total PCB	0.5100 C		0.0300	mg/kg
IC05S0635	IC05SS063501N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	0.7200		0.2000	mg/kg
					SW8080	PCB-1260	2.7000 C		0.3000	mg/kg
						Total PCB	2.7000 C		0.3000	mg/kg
IC05S0636	IC05SS063601N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	1.7000		0.2000	mg/kg
					SW8080	PCB-1260	0.8600 C		0.2000	mg/kg
						Total PCB	0.8600 C		0.2000	mg/kg
IC05S0637	IC05SS063701N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	2.7000		0.2000	mg/kg
					SW8080	PCB-1260	1.6000 C		0.2000	mg/kg
						Total PCB	1.6000 C		0.2000	mg/kg
IC05S0638	IC05SS063801N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	2.8000		0.2000	mg/kg
					SW8080	PCB-1260	3.4000 C		0.7000	mg/kg
						Total PCB	3.4000 C		0.7000	mg/kg
IC05S0639	IC05SS063901N	0.00	12/30/91	01/17/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
					SW8080	PCB-1260	1.3000 C		0.7000	mg/kg
						Total PCB	1.3000 C		0.7000	mg/kg
IC05S0640	IC05SS064001N	0.00	12/30/91	01/20/92	FPCB	PCB-1260	0.8500		0.2000	mg/kg
					SW8080	PCB-1260	0.4000 C		0.2000	mg/kg
						Total PCB	0.4000 C		0.2000	mg/kg

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BOXING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0641	IC05SS064101N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9700 0.7600 0.7600	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0642	IC05SS064201N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.4000 1.2000 1.2000	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0643	IC05SS064301N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.7000 2.6000 2.8000	C C C	0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0644	IC05SS064401N	0.00	12/30/91	12/31/91 01/20/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 1.0000 1.0000	C C C	0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0645	IC05SS064501N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9800 0.2300 0.2300	C C C	0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0646	IC05SS064601N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7000 0.4000 0.4000	C C C	0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0647	IC05SS064701N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4000 0.3900 0.3900	C C C	0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0648	IC05SS064801N	0.00	12/30/91	12/31/91 01/17/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7100 0.5500 0.5500	C C C	0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0649	IC05SS064901N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	1.2000		0.2000	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0649	IC05SS064901N	0.00	12/30/91	01/16/92	SW8080	PCB-1260 Total PCB	0.2800 0.2800 C		0.2000 0.2000	mg/kg mg/kg
IC05S0650	IC05SS065001N	0.00	12/30/91	12/31/91 01/20/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 0.2400 C 0.2400 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0651	IC05SS065101N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.5000 0.5200 C 0.5200 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0652	IC05SS065201N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3600 0.2600 C 0.2600 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0653	IC05SS065301N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6100 0.4300 C 0.4300 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0654	IC05SS065401N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5600 1.0000 G 1.0000 G		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0655	IC05SS065501N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3800 0.5000 C 0.5000 C		0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0657	IC05SS065701N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2200 0.5600 C 0.5600 C		0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0658	IC05SS065801N	0.00	12/30/91	12/31/91 01/16/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2400 0.5300 C		0.2000 0.2000	mg/kg mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0658	IC05SS065801N	0.00	12/30/91	01/16/92	SW8080	Total PCB	0.5300	C	0.2000	mg/kg
IC05S0659	IC05SS065901N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	1.7000		0.2000	mg/kg
				01/16/92	SW8080	PCB-1260	0.5800	C	0.0600	mg/kg
						Total PCB	0.5800	C	0.0600	mg/kg
IC05S0660	IC05SS066001N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	0.7100		0.2000	mg/kg
				01/16/92	SW8080	PCB-1260	0.3700	C	0.2000	mg/kg
						Total PCB	0.3700	C	0.2000	mg/kg
IC05S0661	IC05SS066101N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	1.6000		0.2000	mg/kg
				01/16/92	SW8080	PCB-1260	0.5200	C	0.0300	mg/kg
						Total PCB	0.5200	C	0.0300	mg/kg
IC05S0662	IC05SS066201N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	0.4500		0.2000	mg/kg
				01/16/92	SW8080	PCB-1260	0.2600	C	0.0300	mg/kg
						Total PCB	0.2600	C	0.0300	mg/kg
IC05S0663	IC05SS066301N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	1.6000		0.2000	mg/kg
				01/15/92	SW8080	PCB-1260	1.5000	C	0.2000	mg/kg
						Total PCB	1.5000	C	0.2000	mg/kg
IC05S0664	IC05SS066401N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	3.6000		0.2000	mg/kg
				01/16/92	SW8080	PCB-1260	2.2000	C	0.3000	mg/kg
						Total PCB	2.2000	C	0.3000	mg/kg
IC05S0665	IC05SS066501N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	0.3400		0.2000	mg/kg
				01/16/92	SW8080	PCB-1260	0.3600	C	0.0300	mg/kg
						Total PCB	0.3600	C	0.0300	mg/kg
IC05S0666	IC05SS066601N	0.00	12/30/91	12/31/91	FPCB	PCB-1260	2.4000		0.2000	mg/kg
				01/15/92	SW8080	PCB-1260	2.2000	C	0.3000	mg/kg
						Total PCB	2.2000	C	0.3000	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0667	IC05SS066701N	0.00	12/30/91	12/31/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.5000 0.6200 C 0.6200 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0673	IC05SS067301N	0.00	12/30/91	12/31/91 01/15/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	8.0000 8.2000 C 8.2000 C		0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S0675	IC05SS067501N	0.00	12/31/91	01/02/92 01/20/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	6.4000 3.9000 C 3.9000 C		0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0676	IC05SS067601N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5200 0.4500 C 0.4500 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0677	IC05SS067701N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.0000 9.5000 C 9.5000 C		0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S0678	IC05SS067801N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	6.7000 8.2000 C 8.2000 C		0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S0679	IC05SS067901N	0.00	12/31/91	01/02/92 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 2.2000 C 2.2000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0680	IC05SS068001N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	6.2000 3.0000 C 3.0000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0681	IC05SS068101N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	5.9000		0.2000	mg/kg



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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0681	IC05SS068101N	0.00	12/31/91	01/18/92	SW8080	PCB-1260 Total PCB	3.5000 C 3.5000 C		0.7000 0.7000	mg/kg mg/kg
IC05S0682	IC05SS068201N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4100 0.3300 C 0.3300 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0683	IC05SS068301N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 0.6400 C 0.6400 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0684	IC05SS068401N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2100 0.1200 C 0.1200 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0687	IC05SS068701N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3500 0.1400 C 0.1400 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S0688	IC05SS068801N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 1.0000 C 1.0000 C		0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0690	IC05SS069001N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7400 0.9800 C 0.9800 C		0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0691	IC05SS069101N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2300 0.0620 C 0.0620 C		0.2000 0.0300 0.0300	mg/kg mg/kg mg/kg
IC05S069J	IC05SS069301N	0.00	12/31/91	01/02/92 01/20/92	FPCB SW8080	PCB-1260 PCB-1260	0.2600 0.1900 C		0.2000 0.0300	mg/kg mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0693	IC05SS069301N	0.00	12/31/91	01/20/92	SW8080	Total PCB	0.1900	C	0.0300	mg/kg
IC05S0694	IC05SS069401N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.5200		0.2000	mg/kg
				01/21/92	SW8080	PCB-1260	0.1300	C	0.0300	mg/kg
						Total PCB	0.1300	C	0.0300	mg/kg
IC05S0696	IC05SS069601N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
				01/18/92	SW8080	PCB-1260	0.2100	C	0.0300	mg/kg
						Total PCB	0.2100	C	0.0300	mg/kg
IC05S0697	IC05SS069701N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
				01/21/92	SW8080	PCB-1260	0.2500	C	0.0300	mg/kg
						Total PCB	0.2500	C	0.0300	mg/kg
IC05S0701	IC05SS070101N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
				01/21/92	SW8080	PCB-1260	2.2000	C	0.3000	mg/kg
						Total PCB	2.2000	C	0.3000	mg/kg
IC05S0702	IC05SS070201N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg
				01/18/92	SW8080	PCB-1260	0.1600	C	0.0700	mg/kg
						Total PCB	0.1600	C	0.0700	mg/kg
IC05S0703	IC05SS070301N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.3800		0.2000	mg/kg
				01/21/92	SW8080	PCB-1260	0.4300	C	0.0300	mg/kg
						Total PCB	0.4300	C	0.0300	mg/kg
IC05S0704	IC05SS070401N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.2800		0.2000	mg/kg
				01/18/92	SW8080	PCB-1260	0.1800	C	0.0300	mg/kg
						Total PCB	0.1800	C	0.0300	mg/kg
IC05S0705	IC05SS070501N	0.00	12/31/91	01/02/92	FPCB	PCB-1260	0.2800		0.2000	mg/kg
				01/21/92	SW8080	PCB-1260	0.2000	C	0.0300	mg/kg
						Total PCB	0.2000	C	0.0300	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0707	IC05SS070701N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9500 0.6300 C 0.6300 C		0.2000 0.0700 0.0700	mg/kg mg/kg mg/kg
IC05S0708	IC05SS070801N	0.00	12/31/91	01/02/92 01/20/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.0000 1.4000 C 1.4000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0709	IC05SS070901N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4800 0.5400 C 0.5400 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0713	IC05SS071301N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2900 1.6000 C 1.6000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0714	IC05SS071401N	0.00	12/31/91	01/02/92 01/18/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.5000 1.0000 C 1.0000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0715	IC05SS071501N	0.00	12/31/91	01/02/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6000 1.6000 C 1.6000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0716	IC05SS071601N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2100 1.1000 C 1.1000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0717	IC05SS071701N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	7.3000 6.5000 C 6.5000 C		0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S0718	IC05SS071801N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0718	IC05SS071801N	0.00	01/02/92	01/21/92	SW8080	PCB-1260 Total PCB	2.8000 2.8000 C		0.3000 0.3000	mg/kg mg/kg
IC05S0719	IC05SS071901N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.3000 4.6000 C 4.6000 C		0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S0720	IC05SS072001N	0.00	01/02/92	01/03/92 01/22/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6100 0.3500 C 0.3500 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0721	IC05SS072101N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.7000 2.0000 C 2.0000 C		0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0722	IC05SS072201N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 1.3000 C 1.3000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0723	IC05SS072301N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.8000 1.1000 C 1.1000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0724	IC05SS072401N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.1000 2.2000 C 2.2000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0725	IC05SS072501N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.2000 1.1000 C 1.1000 C		0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S0726	IC05SS072601N	0.00	01/02/92	01/03/92 01/21/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.6000 1.8000 C 1.8000 C		0.2000 0.6000 0.6000	mg/kg mg/kg mg/kg

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## MCCLELLAN OUB RI SOIL RESULTS - QU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0726	IC05SS072601N	0.00	01/02/92	01/21/92	SW8080	Total PCB	1.8000 C	E	0.6000	mg/kg
IC05S0727	IC05SS072701N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	0.3900		0.2000	mg/kg
				01/21/92	SW8080	PCB-1260	0.5500 C		0.0700	mg/kg
						Total PCB	0.5500 C		0.0700	mg/kg
IC05S0728	IC05SS072801N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	0.4000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	2.4000 C		0.3000	mg/kg
						Total PCB	2.4000 C		0.3000	mg/kg
IC05S0732	IC05SS073201N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	7.9000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	4.7000 C	E	0.6000	mg/kg
						Total PCB	4.7000 C	E	0.6000	mg/kg
IC05S0733	IC05SS073301N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	2.3000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	1.3000 C		0.0700	mg/kg
						Total PCB	1.3000 C		0.0700	mg/kg
IC05S0734	IC05SS073401N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	4.4000 C		0.7000	mg/kg
						Total PCB	4.4000 C		0.7000	mg/kg
IC05S0735	IC05SS073501N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	2.6000 C		0.3000	mg/kg
						Total PCB	2.6000 C		0.3000	mg/kg
IC05S0737	IC05SS073701N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	6.1000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	8.5000 C		2.0000	mg/kg
						Total PCB	8.5000 C		2.0000	mg/kg
IC05S0739	IC05SS073901N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	0.4300 C		0.0300	mg/kg
						Total PCB	0.4300 C		0.0300	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0740	IC05SS074001N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	6.7000		0.2000	mg/kg
				01/22/92	SW8080	PCB-1260	7.9000	C	2.0000	mg/kg
						Total PCB	7.9000	C	2.0000	mg/kg
IC05S0741	IC05SS074101N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	2.1000		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	2.0000	C	0.2000	mg/kg
						Total PCB	2.0000	C	0.2000	mg/kg
IC05S0742	IC05SS074201N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	6.9000		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	15.0000	C	2.0000	mg/kg
						Total PCB	15.0000	C	2.0000	mg/kg
IC05S0743	IC05SS074301N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	11.0000	C	2.0000	mg/kg
						Total PCB	11.0000	C	2.0000	mg/kg
IC05S0744	IC05SS074401N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	0.5600		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	0.7900	C	0.0700	mg/kg
						Total PCB	0.7900	C	0.0700	mg/kg
IC05S0747	IC05SS074701N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	0.4000	C	0.0700	mg/kg
						Total PCB	0.4000	C	0.0700	mg/kg
IC05S0748	IC05SS074801N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	0.4100		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	0.9200	C	0.0700	mg/kg
						Total PCB	0.9200	C	0.0700	mg/kg
IC05S0750	IC05SS075001N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	0.2800		0.2000	mg/kg
				01/23/92	SW8080	PCB-1260	0.4400	C	0.0300	mg/kg
						Total PCB	0.4400	C	0.0300	mg/kg
IC05S0753	IC05SS075301N	0.00	01/02/92	01/03/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0753	IC05SS075301N	0.00	01/02/92	01/23/92	SW8080	PCB-1260	0.3500 C		0.0300	mg/kg
						Total PCB	0.3500 C		0.0300	mg/kg
IC05S0762	IC05SS076201N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.6100 Q		0.2000	mg/kg
IC05S0763	IC05SS076301N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.4500 Q	E	0.2000	mg/kg
IC05S0764	IC05SS076401N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.6000 Q	E	0.2000	mg/kg
IC05S0765	IC05SS076501N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.5700 Q	E	0.2000	mg/kg
IC05S0766	IC05SS076601N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.9500 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	1.4000 C		0.3000	MG/KG
						Total PCB	1.4000 C		0.3000	MG/KG
IC05S0767	IC05SS076701N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	2.1000 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	1.1000 C		0.0300	MG/KG
						Total PCB	1.1000 C		0.0300	MG/KG
IC05S0770	IC05SS077001N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	22.0000 Q	E	0.2000	mg/kg
IC05S0771	IC05SS077101N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	15.0000 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	38.0000 C		3.0000	MG/KG
						Total PCB	38.0000 C		3.0000	MG/KG
IC05S0772	IC05SS077201N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	2.4000 Q	E	0.2000	mg/kg
				01/24/92	SW8080	PCB-1260	13.0000 C		2.0000	MG/KG
						Total PCB	13.0000 C		2.0000	MG/KG
IC05S0773	IC05SS077301N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	1.3000 Q	E	0.2000	mg/kg
				01/24/92	SW8080	PCB-1260	40.0000 C		3.0000	MG/KG
						Total PCB	40.0000 C		3.0000	MG/KG

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0774	IC05SS077401N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.5000 Q 6.1000 C 6.1000 C	E	0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0775	IC05SS077501N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	11.0000 Q 11.0000 C 11.0000 C	E	0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0777	IC05SS077701N	0.00	01/03/92	01/06/92 01/24/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	14.0000 Q 56.0000 C 56.0000 C	E	0.2000 3.0000 3.0000	mg/kg MG/KG MG/KG
IC05S0778	IC05SS077801N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	28.0000 Q	E	0.2000	mg/kg
IC05S0779	IC05SS077901N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	20.0000 Q 42.0000 C 42.0000 C	E	0.2000 3.0000 3.0000	mg/kg MG/KG MG/KG
IC05S0780	IC05SS078001N	0.00	01/03/92	01/06/92 01/23/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	8.6000 Q 52.0000 C 53.0000 C	E	0.2000 3.0000 3.0000	mg/kg MG/KG MG/KG
IC05S0781	IC05SS078101N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.2000 Q 5.4000 C 5.4000 C	E	0.2000 0.7000 0.7000	mg/kg MG/KG MG/KG
IC05S0782	IC05SS078201N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	24.0000 Q 30.0000 C 30.0000 C	E	0.2000 3.0000 3.0000	mg/kg MG/KG MG/KG
IC05S0783	IC05SS078301N	0.00	01/03/92	01/06/92 01/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9300 Q 2.4000 C 2.4000 C	E	0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG



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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0784	IC05SS078401N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	1.6000 Q	E	0.2000	mg/kg
IC05S0785	IC05SS078501N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	3.4000 Q	E	0.2000	mg/kg
IC05S0786	IC05SS078601N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.4100 Q	E	0.2000	mg/kg
IC05S0787	IC05SS078701N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.3600 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	0.4700 C		0.0300	MG/KG
						Total PCB	0.4700 C		0.0300	MG/KG
IC05S0788	IC05SS078801N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.4300 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	0.4500 C		0.0300	MG/KG
						Total PCB	0.4500 C		0.0300	MG/KG
IC05S0789	IC05SS078901N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.3600 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	1.1000 C		0.2000	MG/KG
						Total PCB	1.1000 C		0.2000	MG/KG
IC05S0791	IC05SS079101N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.3600 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	0.3000 C		0.0300	MG/KG
						Total PCB	0.3000 C		0.0300	MG/KG
IC05S0792	IC05SS079201N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.5100 Q	E	0.2000	mg/kg
IC05S0793	IC05SS079301N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.2100 Q	E	0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	0.1500 C		0.0300	MG/KG
						Total PCB	0.1500 C		0.0300	MG/KG
IC05S0794	IC05SS079401N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.3900 Q	E	0.2000	mg/kg
				01/27/92	SW8080	PCB-1260	0.4900 C		0.0300	MG/KG
						Total PCB	0.4900 C		0.0300	MG/KG
IC05S0795	IC05SS079501N	0.00	01/03/92	01/06/92	FPCB	PCB-1260	0.5000 Q	E	0.2000	mg/kg

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BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0795	IC05SS079501N	0.00	01/03/92	01/26/92	SW8080	PCB-1260 Total PCB	0.2200 C 0.2200 C		0.0300 0.0300	MG/KG MG/KG
IC05S0796	IC05SS079601N	0.00	01/03/92	01/06/92 01/27/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2400 Q 0.7600 C 0.7600 C	E	0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0797	IC05SS079701N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4400 Q 0.5300 C 0.5300 C	E	0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0798	IC05SS079801N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 Q 1.3000 C 1.3000 C	E	0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0799	IC05SS079901N	0.00	01/03/92	01/06/92 01/26/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3000 Q 0.4800 C 0.4800 C	E	0.2000 0.0700 0.0700	mg/kg MG/KG MG/KG
IC05S0829	IC05SS082901N	0.00	01/09/92	01/09/92 01/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	5.6000 6.2000 C 6.2000 C		0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0830	IC05SS083001N	0.00	01/09/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.9700 4.7000 C 4.7000 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0831	IC05SS083101N	0.00	01/09/92	01/09/92 01/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	4.1000 2.3000 C 2.3000 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0832	IC05SS083201N	0.00	01/09/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260	1.8000 4.1000 C		0.2000 0.7000	mg/kg MG/KG

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0832	IC05SS083201N	0.00	01/09/92	01/29/92	SW8080	Total PCB	4.1000	C	0.7000	MG/KG
IC05S0833	IC05SS083301N	0.00	01/09/92	01/13/92	FPCB	PCB-1260	0.3800		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	0.3300	C	0.0300	MG/KG
						Total PCB	0.3300	C	0.0300	MG/KG
IC05S0834	IC05SS083401N	0.00	01/09/92	01/13/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/30/92	SW8080	PCB-1260	0.7400	C	0.0700	MG/KG
						Total PCB	0.7400	C	0.0700	MG/KG
IC05S0837	IC05SS083701N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	1.9000		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	2.6000	C	0.3000	MG/KG
						Total PCB	2.6000	C	0.3000	MG/KG
IC05S0838	IC05SS083801N	0.00	01/09/92	01/13/92	FPCB	PCB-1260	5.5000		0.2000	mg/kg
				01/30/92	SW8080	PCB-1260	1.8000	C	0.3000	MG/KG
						Total PCB	1.8000	C	0.3000	MG/KG
IC05S0839	IC05SS083901N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
				01/30/92	SW8080	PCB-1260	2.0000	C	0.3000	MG/KG
						Total PCB	2.0000	C	0.3000	MG/KG
IC05S0840	IC05SS084001N	0.00	01/05/92	01/09/92	FPCB	PCB-1260	2.3000		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	2.8000	C	0.3000	MG/KG
						Total PCB	2.8000	C	0.3000	MG/KG
IC05S0841	IC05SS084101N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
				01/26/92	SW8080	PCB-1260	1.1000	C	0.2000	MG/KG
						Total PCB	1.1000	C	0.2000	MG/KG
IC05S0843	IC05SS084301N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.5200		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	0.4800	C	0.0300	MG/KG
						Total PCB	0.4800	C	0.0300	MG/KG

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0844	IC05SS084401N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	1.0000	C	0.3000	MG/KG
						Total PCB	1.0000	C	0.3000	MG/KG
IC05S0846	IC05SS084601N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.9700		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	1.3000	C	0.3000	MG/KG
						Total PCB	1.3000	C	0.3000	MG/KG
IC05S0848	IC05SS084801N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.9100		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	0.5900	C	0.0300	MG/KG
						Total PCB	0.5900	C	0.0300	MG/KG
IC05S0849	IC05SS084901N	0.00	01/09/92	01/13/92	FPCB	PCB-1260	1.9000		0.2000	mg/kg
				01/30/92	SW8080	PCB-1260	0.5500	C	0.0700	MG/KG
						Total PCB	0.5500	C	0.0700	MG/KG
IC05S0850	IC05SS085001N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.7100		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	1.3000	C	0.3000	MG/KG
						Total PCB	1.3000	C	0.3000	MG/KG
IC05S0853	IC05SS085301N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	0.2700	C	0.0300	MG/KG
						Total PCB	0.2700	C	0.0300	MG/KG
IC05S0854	IC05SS085401N	0.00	01/09/92	01/13/92	FPCB	PCB-1260	0.5600		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	0.4500	C	0.0700	MG/KG
						Total PCB	0.4500	C	0.0700	MG/KG
IC05S0856	IC05SS085601N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.6700		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	0.1200	C	0.0300	MG/KG
						Total PCB	0.1200	C	0.0300	MG/KG
IC05S0857	IC05SS085701N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.3300		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0857	IC05SS085701N	0.00	01/09/92	01/27/92	SW8080	PCB-1260 Total PCB	0.5700 0.5700 C		0.0300 0.0300	MG/KG MG/KG
IC05S0858	IC05SS085801N	0.00	01/09/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.8100 0.4800 C 0.4800 C		0.2000 0.0700 0.0700	mg/kg MG/KG MG/KG
IC05S0859	IC05SS085901N	0.00	01/09/92	01/09/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6900 0.5300 C 0.5300 C		0.2000 0.2000 0.2000	mg/kg MG/KG MG/KG
IC05S0860	IC05SS086001N	0.00	01/09/92	01/09/92 01/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.4000 2.4000 C 2.4000 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0861	IC05SS086101N	0.00	01/09/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.6000 1.0000 C 1.0000 C		0.2000 0.0700 0.0700	mg/kg MG/KG MG/KG
IC05S0862	IC05SS086201N	0.00	01/09/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.5000 5.8000 C 5.8000 C		0.2000 2.0000 2.0000	mg/kg MG/KG MG/KG
IC05S0863	IC05SS086301N	0.00	01/09/92	01/09/92 01/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.8600 0.4200 C 0.4200 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0864	IC05SS086401N	0.00	01/09/92	01/09/92 01/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2900 0.4100 C 0.4100 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0865	IC05SS086501N	0.00	01/09/92	01/09/92 01/27/92	FPCB SW8080	PCB-1260 PCB 1260	0.3900 0.5100 C		0.2000 0.0300	mg/kg MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0865	IC05SS086501N	0.00	01/09/92	01/27/92	SW8080	Total PCB	0.5100	C	0.0300	MG/KG
IC05S0866	IC05SS086601N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	2.3000		0.2000	mg/kg
				01/28/92	SW8080	PCB-1260	3.4000	C	0.7000	MG/KG
						Total PCB	3.4000	C	0.7000	MG/KG
IC05S0867	IC05SS086701N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.8900		0.2000	mg/kg
				01/27/92	SW8080	PCB-1260	2.8000	C	0.4000	MG/KG
						Total PCB	2.8000	C	0.4000	MG/KG
IC05S0868	IC05SS086801N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.6800		0.2000	mg/kg
				01/27/92	SW8080	PCB-1260	0.5200	C	0.0300	MG/KG
						Total PCB	0.5200	C	0.0300	MG/KG
IC05S0869	IC05SS086901N	0.00	01/09/92	01/09/92	FPCB	PCB-1260	0.7500		0.2000	mg/kg
				01/27/92	SW8080	PCB-1260	0.4700	C	0.0300	MG/KG
						Total PCB	0.4700	C	0.0300	MG/KG
IC05S0871	IC05SS087101N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	0.3900	C	0.0700	MG/KG
						Total PCB	0.3900	C	0.0700	MG/KG
IC05S0872	IC05SS087201N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.6600		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	1.1000	C	0.2000	MG/KG
						Total PCB	1.1000	C	0.2000	MG/KG
IC05S0873	IC05SS087301N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.4200		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	0.3600	C	0.0700	MG/KG
						Total PCB	0.3600	C	0.0700	MG/KG
IC05S0874	IC05SS087401N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.5700		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	0.3400	C	0.0300	MG/KG
						Total PCB	0.3400	C	0.0300	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0875	IC05SS087501N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.6000 0.3500 C 0.3500 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0876	IC05SS087601N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2700 0.2300 C 0.2300 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0877	IC05SS087701N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3700 0.3000 C 0.3000 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0879	IC05SS087901N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.0000 2.0000 C 2.0000 C		0.2000 0.3000 0.3000	mg/kg MG/KG MG/KG
IC05S0882	IC05SS088201N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4500 0.3800 C 0.3800 C		0.2000 0.0300 0.0300	mg/kg MG/KG MG/KG
IC05S0884	IC05SS088401N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.4200 0.6900 C 0.6900 C		0.2000 0.0700 0.0700	mg/kg MG/KG MG/KG
IC05S0885	IC05SS088501N	0.00	01/10/92	01/29/92	SW8080	PCB-1260 Total PCB	0.3000 C 0.3000 C		0.0300 0.0300	MG/KG MG/KG
IC05S0886	IC05SS088601N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.5700 0.5000 C 0.5000 C		0.2000 0.0700 0.0700	mg/kg MG/KG MG/KG
IC05S0887	IC05SS088701N	0.00	01/10/92	01/13/92 01/29/92	FPCB SW8080	PCB-1260 PCB-1260	1.0000 0.9000 C		0.2000 0.0700	mg/kg MG/KG

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0887	IC05SS088701N	0.00	01/10/92	01/29/92	SW8080	Total PCB	0.9000 C		0.0700	MG/KG
IC05S0889	IC05SS088901N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.2800		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	0.2600 C		0.0300	MG/KG
						Total PCB	0.2600 C		0.0300	MG/KG
IC05S0891	IC05SS089101N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	1.2000 C		0.2000	MG/KG
						Total PCB	1.2000 C		0.2000	MG/KG
IC05S0892	IC05SS089201N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	0.9400 C		0.2000	MG/KG
						Total PCB	0.9400 C		0.2000	MG/KG
IC05S0893	IC05SS089301N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	1.9000		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	2.9000 C		0.7000	MG/KG
						Total PCB	2.9000 C		0.7000	MG/KG
IC05S0894	IC05SS089401N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	0.8200		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	1.1000 C		0.2000	MG/KG
						Total PCB	1.1000 C		0.2000	MG/KG
IC05S0895	IC05SS089501N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	5.6000 C		2.0000	MG/KG
						Total PCB	5.6000 C		2.0000	MG/KG
IC05S0896	IC05SS089601N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	11.6000		0.2000	mg/kg
				01/29/92	SW8080	PCB-1260	32.0000 C		3.0000	MG/KG
						Total PCB	32.0000 C		3.0000	MG/KG
IC05S0897	IC05SS089701N	0.00	01/10/92	01/13/92	FPCB	PCB-1260	2.5000		0.2000	mg/kg
				01/30/92	SW8080	PCB-1260	2.2000 C		0.3000	MG/KG
						Total PCB	2.2000 C		0.3000	MG/KG



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0898	IC05SS089801N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	6.4000 2.3000 C 2.3000 C		0.2000 mg/kg 0.7000 MG/KG 0.7000 MG/KG	
IC05S0899	IC05SS089901N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	7.5000 10.0000 C 10.0000 C		0.2000 mg/kg 2.0000 MG/KG 2.0000 MG/KG	
IC05S0902	IC05SS090201N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.2000 0.5100 C 0.5100 C		0.2000 mg/kg 0.0300 MG/KG 0.0300 MG/KG	
IC05S0903	IC05SS090301N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.7800 0.4300 C 0.4300 C		0.2000 mg/kg 0.0700 MG/KG 0.0700 MG/KG	
IC05S0904	IC05SS090401N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 8.4000 C 8.4000 C		0.2000 mg/kg 4.0000 MG/KG 4.0000 MG/KG	
IC05S0907	IC05SS090701N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.8000 1.1000 C 1.1000 C		0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0908	IC05SS090801N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.3600 0.3100 C 0.3100 C		0.2000 mg/kg 0.2000 MG/KG 0.2000 MG/KG	
IC05S0911	IC05SS091101N	0.00	01/10/92	01/13/92 01/30/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2700 0.4300 C 0.4300 C		0.2000 mg/kg 0.0700 MG/KG 0.0700 MG/KG	
IC05S0912	IC05SS091201N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.8400		0.2000 mg/kg	

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0913	IC05SS091301N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.5600		0.2000	mg/kg
IC05S0914	IC05SS091401N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.9700		0.2000	mg/kg
IC05S0915	IC05SS091501N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.6300		0.2000	mg/kg
IC05S0916	IC05SS091601N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	9.8000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	13.0000	C	3.0000	mg/kg
						Total PCB	13.0000	C	3.0000	mg/kg
IC05S0917	IC05SS091701N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.6500		0.2000	mg/kg
IC05S0918	IC05SS091801N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.8500		0.2000	mg/kg
IC05S0919	IC05SS091901N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.6300		0.2000	mg/kg
IC05S0920	IC05SS092001N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	0.7400	C	0.0600	mg/kg
						Total PCB	0.7400	C	0.0600	mg/kg
IC05S0921	IC05SS092101N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	1.2000	C	0.2000	mg/kg
						Total PCB	1.2000	C	0.2000	mg/kg
IC05S0922	IC05SS092201N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	1.8000	C	0.3000	mg/kg
						Total PCB	1.8000	C	0.3000	mg/kg
IC05S0923	IC05SS092301N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.9000		0.2000	mg/kg
IC05S0924	IC05SS092401N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
				02/03/92	SW8080	PCB-1260	1.3000	C	0.0700	mg/kg
						Total PCB	1.3000	C	0.0700	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0925	IC05SS092501N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.7000 2.7000 C 2.7000 C		0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0926	IC05SS092601N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.6000 1.8000 C 1.8000 C		0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0927	IC05SS092701N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.8100		0.2000	mg/kg
IC05S0928	IC05SS092801N	0.00	01/13/92	01/14/92 02/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	10.3000 3.5000 C 3.5000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0929	IC05SS092901N	0.00	01/13/92	01/14/92 02/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	9.9000 15.0000 C 15.0000 C		0.2000 3.0000 3.0000	mg/kg mg/kg mg/kg
IC05S0930	IC05SS093001N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.2000 8.3000 C 8.3000 C		0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S0931	IC05SS093101N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.5000 1.8000 C 1.8000 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0932	IC05SS093201N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.8100		0.2000	mg/kg
IC05S0933	IC05SS093301N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.1000 0.8100 C 0.8100 C		0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0934	IC05SS093401N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.5000		0.2000	mg/kg

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0934	IC05SS093401N	0.00	01/13/92	01/31/92	SW8080	PCB-1260 Total PCB	1.3000 1.3000	C C	0.3000 0.3000	mg/kg mg/kg
IC05S0935	IC05SS093501N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.0000 0.9600 0.9600	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0936	IC05SS093601N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.6000 1.3000 1.3000	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0937	IC05SS093701N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.8200		0.2000	mg/kg
IC05S0938	IC05SS093801N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.2000 2.6000 2.6000	C C C	0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0939	IC05SS093901N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.3300		0.2000	mg/kg
IC05S0940	IC05SS094001N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.7000 2.6000 2.6000	C C C	0.2000 0.7000 0.7000	mg/kg mg/kg mg/kg
IC05S0941	IC05SS094101N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.7000		0.2000	mg/kg
IC05S0942	IC05SS094201N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.2000 0.7700 0.7700	C C C	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg
IC05S0943	IC05SS094301N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.6800		0.2000	mg/kg
IC05S0945	IC05SS094501N	0.00	01/13/92	01/14/92 01/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 2.7000	C C	0.2000 0.7000	mg/kg mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0945	IC05SS094501N	0.00	01/13/92	01/31/92	SW8080	Total PCB	2.7000	C	0.7000	mg/kg
IC05S0947	IC05SS094701N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	1.5000	C	0.3000	mg/kg
						Total PCB	1.5000	C	0.3000	mg/kg
IC05S0949	IC05SS094901N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.5300		0.2000	mg/kg
IC05S0950	IC05SS095001N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.3500		0.2000	mg/kg
IC05S0951	IC05SS095101N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	1.4000	C	0.2000	mg/kg
						Total PCB	1.4000	C	0.2000	mg/kg
IC05S0952	IC05SS095201N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg
IC05S0954	IC05SS095401N	0.00	01/13/92	01/14/92	FPCB	PCB-1260	0.8900		0.2000	mg/kg
IC05S0955	IC05SS095501N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
				02/03/92	SW8080	PCB-1260	1.4000	C	0.2000	mg/kg
						Total PCB	1.4000	C	0.2000	mg/kg
IC05S0956	IC05SS095601N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	1.8000	C	0.3000	mg/kg
						Total PCB	1.8000	C	0.3000	mg/kg
IC05S0957	IC05SS095701N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	0.5100		0.2000	mg/kg
IC05S0958	IC05SS095801N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	0.3900		0.2000	mg/kg
IC05S0959	IC05SS095901N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	0.9500		0.2000	mg/kg
IC05S0960	IC05SS096001N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0961	IC05SS096101N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	3.0000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	5.9000	C	2.0000	mg/kg
						Total PCB	5.9000	C	2.0000	mg/kg
IC05S0962	IC05SS096201N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	0.9300		0.2000	mg/kg
IC05S0963	IC05SS096301N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	5.4000		0.2000	mg/kg
				02/01/92	SW8080	PCB-1260	10.0000	C	4.0000	mg/kg
						Total PCB	10.0000	C	4.0000	mg/kg
IC05S0964	IC05SS096401N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	18.0000		0.2000	mg/kg
				02/01/92	SW8080	PCB-1260	44.0000	C	22.0000	mg/kg
						Total PCB	44.0000	C	22.0000	mg/kg
IC05S0965	IC05SS096501N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	3.7000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	4.1000	C	0.7000	mg/kg
						Total PCB	4.1000	C	0.7000	mg/kg
IC05S0966	IC05SS096601N	0.00	01/14/92	01/14/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
				01/31/92	SW8080	PCB-1260	2.9000	C	0.7000	mg/kg
						Total PCB	2.9000	C	0.7000	mg/kg
IC05S0967	IC05SS096701N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.8300		0.2000	mg/kg
IC05S0969	IC05SS096901N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S0970	IC05SS097001N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	2.2000		0.2000	mg/kg
IC05S0971	IC05SS097101N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.5400		0.2000	mg/kg
IC05S0972	IC05SS097201N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.9200		0.2000	mg/kg
IC05S0973	IC05SS097301N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.9400		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0974	IC05SS097401N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.8800		0.2000	mg/kg
IC05S0975	IC05SS097501N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S0976	IC05SS097601N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.6800		0.2000	mg/kg
IC05S0977	IC05SS097701N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.8900		0.2000	mg/kg
IC05S0978	IC05SS097801N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.5100		0.2000	mg/kg
IC05S0979	IC05SS097901N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.4800		0.2000	mg/kg
IC05S0980	IC05SS098001N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.3400		0.2000	mg/kg
IC05S0981	IC05SS098101N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.8200		0.2000	mg/kg
IC05S0983	IC05SS098301N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
IC05S0984	IC05SS098401N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.2700		0.2000	mg/kg
IC05S0985	IC05SS098501N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.4400		0.2000	mg/kg
IC05S0986	IC05SS098601N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S0988	IC05SS098801N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	3.8000		0.2000	mg/kg
IC05S0989	IC05SS098901N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
IC05S0990	IC05SS099001N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S0991	IC05SS099101N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
IC05S0992	IC05SS099201N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	2.9000		0.2000	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S0993	IC05SS099301N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S0994	IC05SS099401N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.7700		0.2000	mg/kg
IC05S0995	IC05SS099501N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S0996	IC05SS099601N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	0.5900		0.2000	mg/kg
IC05S0997	IC05SS099701N	0.00	01/14/92	01/15/92	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S0998	IC05SS099801N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	29.0000		0.2000	mg/kg
			02/03/92		SW8080	PCB-1260	40.0000	C	3.0000	mg/kg
						Total PCB	40.0000	C	3.0000	mg/kg
IC05S0999	IC05SS099901N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	9.8000	Q	0.2000	mg/kg
			02/03/92		SW8080	PCB-1260	18.0000	C	0.7000	mg/kg
						Total PCB	18.0000	C	0.7000	mg/kg
IC05S1000	IC05SS100001N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	6.3000	Q	0.2000	mg/kg
			02/04/92		SW8080	PCB-1260	13.0000	C	0.7000	mg/kg
						Total PCB	13.0000	C	0.7000	mg/kg
IC05S1001	IC05SS100101N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	3.0000	Q	0.2000	mg/kg
			02/01/92		SW8080	PCB-1260	6.5000	C	3.0000	mg/kg
						Total PCB	6.5000	C	3.0000	mg/kg
IC05S1002	IC05SS100201N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	1.8000	Q	0.2000	mg/kg
			02/20/92		SW8080	PCB-1260	5.0000	C	0.7000	mg/kg
						Total PCB	5.0000	C	0.7000	mg/kg
IC05S1003	IC05SS100301N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	2.9000	Q	0.2000	mg/kg
			02/04/92		SW8080	PCB-1260	2.2000	C	0.3000	mg/kg
						Total PCB	2.2000	C	0.3000	mg/kg



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## MCCELLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1004	IC05SS100401N	0.00	01/17/92	01/17/92 02/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.6000 Q 2.9000 C 2.9000 C	E	0.2000 0.6000 0.6000	mg/kg mg/kg mg/kg
IC05S1005	IC05SS100501N	0.00	01/17/92	01/17/92 02/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.3000 Q 4.2000 C 4.2000 C	E	0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S1006	IC05SS100601N	0.00	01/17/92	01/17/92 02/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.3000 Q 1.4000 C 1.4000 C	E	0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S1007	IC05SS100701N	0.00	01/17/92	01/17/92 02/02/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	4.7000 Q 4.6000 C 4.6000 C	E	0.2000 3.0000 3.0000	mg/kg mg/kg mg/kg
IC05S1008	IC05SS100801N	0.00	01/17/92	01/17/92 02/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.9000 Q 2.4000 C 2.4000 C	E	0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S1009	IC05SS100901N	0.00	01/17/92	01/17/92 02/03/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	2.3000 Q 2.3000 C 2.8000 C	E	0.2000 0.3000 0.3000	mg/kg mg/kg mg/kg
IC05S1010	IC05SS101001N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.9600 Q	E	0.2000	mg/kg
IC05S1011	IC05SS101101N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.7900 Q	E	0.2000	mg/kg
IC05S1012	IC05SS101201N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.4900 Q	E	0.2000	mg/kg
IC05S1013	IC05SS101301N	0.00	01/17/92	01/17/92 02/01/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1.0000 Q 0.9300 C 0.9300 C	E	0.2000 0.2000 0.2000	mg/kg mg/kg mg/kg

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1014	IC05SS101401N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.5100 Q	E	0.2000	mg/kg
IC05S1015	IC05SS101501N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.6100 Q	E	0.2000	mg/kg
IC05S1016	IC05SS101601N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.7800 Q	E	0.2000	mg/kg
IC05S1017	IC05SS101701N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	3.5000 Q	E	0.2000	mg/kg
				02/01/92	SW8080	PCB-1260	4.5000 C		2.0000	mg/kg
						Total PCB	4.5000 C		2.0000	mg/kg
IC05S1018	IC05SS101801N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	1.4000 Q	E	0.2000	mg/kg
				02/01/92	SW8080	PCB-1260	1.3000 C		0.3000	mg/kg
						Total PCB	1.3000 C		0.3000	mg/kg
IC05S1019	IC05SS101901N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	4.3000 Q	E	0.2000	mg/kg
				02/03/92	SW8080	PCB-1260	3.7000 C		0.2000	mg/kg
						Total PCB	3.7000 C		0.2000	mg/kg
IC05S1020	IC05SS102001N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	24.0000 Q	E	0.2000	mg/kg
				02/01/92	SW8080	PCB-1260	35.0000 C		24.0000	mg/kg
						Total PCB	35.0000 C		24.0000	mg/kg
IC05S1021	IC05SS102101N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	7.3000 Q	E	0.2000	mg/kg
				02/01/92	SW8080	PCB-1260	16.0000 C		7.0000	mg/kg
						Total PCB	16.0000 C		7.0000	mg/kg
IC05S1022	IC05SS102201N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.5200 Q	E	0.2000	mg/kg
IC05S1023	IC05SS102301N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	4.7000 Q	E	0.2000	mg/kg
				02/02/92	SW8080	PCB-1260	0.1600 C		0.0300	mg/kg
						Total PCB	0.1600 C		0.0300	mg/kg
IC05S1024	IC05SS102401N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	1.0000 Q	E	0.2000	mg/kg

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1024	IC05SS102401N	0.00	01/17/92	02/02/92	SW8080	PCB-1260 Total PCB	1.5000 C 1.5000 C		0.3000 0.3000	mg/kg mg/kg
IC05S1025	IC05SS102501N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	0.8400 Q	E	0.2000	mg/kg
IC05S1026	IC05SS102601N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	2.1000 Q	E	0.2000	mg/kg
				02/02/92	SW8080	PCB-1260 Total PCB	6.8000 C 6.8000 C		2.0000 2.0000	mg/kg mg/kg
IC05S1027	IC05SS102701N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	5.8000 Q	E	0.2000	mg/kg
				02/02/92	SW8080	PCB-1260 Total PCB	8.4000 C 8.4000 C		3.0000 3.0000	mg/kg mg/kg
IC05S1028	IC05SS102801N	0.00	01/17/92	01/21/92	FPCB	PCB-1260	39.0000		0.2000	mg/kg
				02/02/92	SW8080	PCB-1260 Total PCB	120.0000 C 120.0000 C		33.0000 330.0000	MG/KG MG/KG
IC05S1029	IC05SS102901N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	3.8000		0.2000	mg/kg
				02/01/92	SW8080	PCB-1260 Total PCB	7.0000 C 7.0000 C		3.0000 3.0000	mg/kg mg/kg
IC05S1030	IC05SS103001N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	3.2000		0.2000	mg/kg
				02/01/92	SW8080	PCB-1260 Total PCB	2.7000 C 2.7000 C		0.7000 0.7000	mg/kg mg/kg
IC05S1031	IC05SS103101N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
				02/03/92	SW8080	PCB-1260 Total PCB	25.0000 C 25.0000 C		2.0000 2.0000	mg/kg mg/kg
IC05S1032	IC05SS103201N	0.00	01/17/92	01/21/92	FPCB	PCB-1260	29.0000		0.2000	mg/kg
				02/02/92	SW8080	PCB-1260 Total PCB	170.0000 C 170.0000 C		22.0000 220.0000	MG/KG MG/KG

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MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1033	IC05SS103301N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	9.6000		0.2000	mg/kg
			02/03/92	02/03/92	SW8080	PCB-1260	13.0000 C		0.7000	mg/kg
						Total PCB	13.0000 C		0.7000	mg/kg
IC05S1034	IC05SS103401N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	9.4000		0.2000	mg/kg
			02/03/92	02/03/92	SW8080	PCB-1260	13.0000 C		2.0000	mg/kg
						Total PCB	13.0000 C		2.0000	mg/kg
IC05S1035	IC05SS103501N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	6.9000		0.2000	mg/kg
			02/03/92	02/03/92	SW8080	PCB-1260	4.2000 C		0.7000	mg/kg
						Total PCB	4.2000 C		0.7000	mg/kg
IC05S1036	IC05SS103501N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	8.6000		0.2000	mg/kg
			02/03/92	02/03/92	SW8080	PCB-1260	10.0000 C		2.0000	mg/kg
						Total PCB	10.0000 C		2.0000	mg/kg
IC05S1037	IC05SS103701N	0.00	01/17/92	01/17/92	FPCB	PCB-1260	7.3000		0.2000	mg/kg
			02/01/92	02/01/92	SW8080	PCB-1260	11.0000 C		7.0000	mg/kg
						Total PCB	11.0000 C		7.0000	mg/kg
IC05S1038	IC05SS103801N	0.00	01/17/92	01/21/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1039	IC05SS103901N	0.00	01/17/92	01/21/92	FPCB	PCB-1260	2.7000		0.2000	mg/kg
			02/02/92	02/02/92	SW8080	PCB-1260	12.0000 C		0.7000	MG/KG
						Total PCB	12.0000 C		7.0000	MG/KG
IC05S1040	IC05SS104001N	0.00	01/17/92	01/21/92	FPCB	PCB-1260	2.2000		0.2000	mg/kg
			02/04/92	02/04/92	SW8080	PCB-1260	1.3000 C		0.2000	MG/KG
						Total PCB	1.3000 C		2.0000	MG/KG
IC05S1041	IC05SS104101N	0.00	01/23/92	01/21/92	FPCB	PCB-1260	0.5800		0.2000	mg/kg
IC05S1042	IC05SS104201N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1043	IC05SS104301N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2800		0.2000	mg/kg
IC05S1044	IC05SS104401N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
IC05S1045	IC05SS104501N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.5900		0.2000	mg/kg
IC05S1046	IC05SS104601N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2100		0.2000	mg/kg
IC05S1049	IC05SS104901N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.7700		0.2000	mg/kg
IC05S1050	IC05SS105001N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2400		0.2000	mg/kg
IC05S1051	IC05SS105101N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2200		0.2000	mg/kg
IC05S1054	IC05SS105401N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2500		0.2000	mg/kg
IC05S1058	IC05SS105801N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.2800		0.2000	mg/kg
IC05S1064	IC05SS106401N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.4800		0.2000	mg, P <sub>2</sub>
IC05S1067	IC05SS106701N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.7200		0.2000	mg/kg
IC05S1069	IC05SS106901N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	0.4300		0.2000	mg/kg
IC05S1070	IC05SS107001N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	4.1000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	4.0000	CB	0.7000	MG/KG
						Total PCB	4.0000	CB	7.0000	MG/KG
IC05S1071	IC05SS107101N	0.00	01/20/92	01/21/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S1073	IC05SS107301N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	0.5900		0.2000	mg/kg
IC05S1074	IC05SS107401N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	2.2000		0.2000	mg/kg

Printed on Monday, May 17, 1993, at 13:42:15

## MCCLELLAN OUB RI SOIL RESULTS - DU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1074	IC05SS107401N	0.00	01/21/92	02/02/92	SW8080	PCB-1260 Total PCB	4.0000 C 4.0000 C		2.0000 22.0000	MG/KG MG/KG
IC05S1075	IC05SS107501N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	0.5300		0.2000	mg/kg
IC05S1076	IC05SS107601N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	4.2000		0.2000	mg/kg
				02/02/92	SW8080	PCB-1260	6.6000 C		2.0000	MG/KG
						Total PCB	6.6000 C		21.0000	MG/KG
IC05S1077	IC05SS107701N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	4.8000		0.2000	mg/kg
IC05S1078	IC05SS107801N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
				02/04/92	SW8080	PCB-1260	6.5000 C		0.6000	MG/KG
						Total PCB	6.5000 C		6.0000	MG/KG
IC05S1079	IC05SS107901N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	0.5500		0.2000	mg/kg
IC05S1080	IC05SS108001N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.7000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	5.3000 CB		2.0000	MG/KG
						Total PCB	5.3000 CB		21.0000	MG/KG
IC05S1081	IC05SS108101N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.8000		0.2000	mg/kg
IC05S1082	IC05SS108201N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	2.6000 CB		2.0000	MG/KG
						Total PCB	2.6000 CB		21.0000	MG/KG
IC05S1083	IC05SS108301N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	0.6600 CB		0.3000	MG/KG
						Total PCB	0.6600 CB		3.0000	MG/KG
IC05S1084	IC05SS108401N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	0.7300		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAI FLAG	REPT LIMIT	UNITS
IC05S1085	IC05SS108501N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	2.6000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	2.0000	CB	0.6000	MG/KG
						Total PCB	2.0000	CB	6.0000	MG/KG
IC05S1086	IC05SS108601N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.7000		0.2000	mg/kg
IC05S1087	IC05SS108701N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	7.3000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	6.2000	CB	3.0000	MG/KG
						Total PCB	6.2000	CB	32.0000	MG/KG
IC05S1088	IC05SS108801N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	3.7000		0.2000	mg/kg
IC05S1089	IC05SS108901N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	5.7000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	6.2000	CB	2.0000	MG/KG
						Total PCB	6.2000	CB	21.0000	MG/KG
IC05S1090	IC05SS109001N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	4.3000		0.2000	mg/kg
IC05S1091	IC05SS109101N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	7.5000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	12.0000	CB	3.0000	MG/KG
						Total PCB	12.0000	CB	31.0000	MG/KG
IC05S1092	IC05SS109201N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05S1093	IC05SS109301N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
				02/07/92	SW8080	PCB-1260	10.0000	CB	2.0000	MG/KG
						Total PCB	10.0000	CB	21.0000	MG/KG
IC05S1094	IC05SS109401N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	12.0000	Q	0.2000	mg/kg
				02/07/92	SW8080	PCB-1260	10.0000	CB	2.0000	MG/KG
						Total PCB	10.0000	CB	21.0000	MG/KG
IC05S1095	IC05SS109501N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1095	IC05SS109501N	0.00	01/21/92	02/11/92	SW8080	PCB-1260 Total PCB	16.0000 CB 18.0000 CB		2.0000 21.0000	MG/KG MG/KG
IC05S1096	IC05SS109601N	0.00	01/21/92	01/22/92 02/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	24.0000 Q 26.0000 CB 26.0000 CB	E	0.2000 3.0000 31.0000	mg/kg MG/KG MG/KG
IC05S1097	IC05SS109701N	0.00	01/21/92	01/22/92 02/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	22.0000 48.0000 CB 48.0000 CB		0.2000 3.0000 32.0000	mg/kg MG/KG MG/KG
IC05S1098	IC05SS109801N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	46.0000 Q	E	0.2000	mg/kg
IC05S1099	IC05SS109901N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	31.0000		0.2000	mg/kg
IC05S1100	IC05SS110001N	0.00	01/21/92	01/22/92 02/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	20.0000 Q 29.0000 CB 29.0000 CB	E	0.2000 3.0000 31.0000	mg/kg MG/KG MG/KG
IC05S1101	IC05SS110101N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	27.0000		0.2000	mg/kg
IC05S1102	IC05SS110201N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	130.0000 Q	E	0.2000	mg/kg
IC05S1103	IC05SS110301N	0.00	01/21/92	01/24/92 02/07/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	38000.0000 160000.0000 C 160000.0000 C		0.2000 6500.0000 6500.0000	mg/kg mg/kg mg/kg
IC05S1104	IC05SS110401N	0.00	01/21/92	01/22/92 02/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	16000.0000 130000.0000 CB 130000.0000 CB		0.2000 32000.0000 32000.0000	mg/kg MG/KG MG/KG
IC05S1105	IC05SS110501N	0.00	01/21/92	01/22/92 02/11/92	FPCB SW8080	PCB-1260 PCB-1260	22000.0000 Q 31000.0000 CB	E	0.2000 3100.0000	mg/kg MG/KG



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1105	IC05SS110501N	0.00	01/21/92	02/11/92	SW8080	Total PCB	31000.0000	CB	31000.0000	MG/KG
IC05S1106	IC05SS110601N	0.00	01/21/92	01/24/92	FPCB	PCB-1260	27000.0000		0.2000	mg/kg
				02/12/92	SW8080	PCB-1260	42000.0000	CB	3100.0000	mg/kg
						Total PCB	42000.0000	CB	3100.0000	mg/kg
IC05S1107	IC05SS110701N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	36.0000		0.2000	mg/kg
IC05S1108	IC05SS110801N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	19.0000	Q	0.2000	mg/kg
				02/07/92	SW8080	PCB-1260	23.0000	CB	3.0000	MG/KG
						Total PCB	23.0000	CB	32.0000	MG/KG
IC05S1109	IC05SS110901N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	20.0000		0.2000	mg/kg
				02/07/92	SW8080	PCB-1260	48.0000	CB	3.0000	MG/KG
						Total PCB	48.0000	CB	32.0000	MG/KG
IC05S1110	IC05SS111001N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	2.7000		0.2000	mg/kg
IC05S1112	IC05SS111201N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	2.8000	Q	0.2000	mg/kg
IC05S1113	IC05SS111301N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.9000		0.2000	mg/kg
IC05S1114	IC05SS111401N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	0.9300		0.2000	mg/kg
IC05S1115	IC05SS111501N	0.00	01/21/92	01/22/92	FPCB	PCB-1260	1.4000	Q	0.2000	mg/kg
IC05S1116	IC05SS111601N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	2.7000	C	0.3000	mg/kg
						Total PCB	2.7000	C	0.3000	mg/kg
IC05S1117	IC05SS111701N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	0.7700		0.2000	mg/kg
IC05S1118	IC05SS111801N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	0.6300		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1119	IC05SS111901N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	0.8500		0.2000	mg/kg
IC05S1120	IC05SS112001N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	0.8900		0.2000	mg/kg
IC05S1121	IC05SS112101N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
					SW8080	PCB-1260	6.0000 CB		3.0000	mg/kg
				02/12/92		Total PCB	6.0000 CB		3.0000	mg/kg
IC05S1122	IC05SS112201N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	2.6000		0.2000	mg/kg
					SW8080	PCB-1260	3.7000 C		0.6000	mg/kg
				02/05/92		Total PCB	3.7000 C		0.6000	mg/kg
IC05S1123	IC05SS112301N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
					SW8080	PCB-1260	5.8000 CB	E	2.0000	mg/kg
				02/14/92		Total PCB	5.8000 CB	E	2.0000	mg/kg
IC05S1124	IC05SS112401N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
					SW8080	PCB-1260	4.5000 C		0.6000	mg/kg
				02/05/92		Total PCB	4.5000 C		0.6000	mg/kg
IC05S1125	IC05SS112501N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
					SW8080	PCB-1260	3.5000 C		0.3000	mg/kg
				02/04/92		Total PCB	3.5000 C		0.3000	mg/kg
IC05S1126	IC05SS112601N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	1.7000		0.2000	mg/kg
					SW8080	PCB-1260	2.9000 C		0.6000	mg/kg
				02/05/92		Total PCB	2.9000 C		0.6000	mg/kg
IC05S1127	IC05SS112701N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	3.0000		0.2000	mg/kg
					SW8080	PCB-1260	6.3000 C		3.0000	mg/kg
				02/05/92		Total PCB	6.3000 C		3.0000	mg/kg
IC05S1128	IC05SS112801N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	40.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1128	IC05SS112801N	0.00	01/22/92	02/04/92	SW8080	PCB-1260 Total PCB	71.0000 C 71.0000 C		3.0000 3.0000	mg/kg mg/kg
IC05S1129	IC05SS112901N	0.00	01/22/92	01/24/92 02/12/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	8.0000 6.3000 CB 6.3000 CB		0.2000 3.0000 3.0000	mg/kg mg/kg mg/kg
IC05S1130	IC05SS113001N	0.00	01/22/92	01/24/92 02/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	4.3000 16.0000 C 16.0000 C	E E	0.2000 2.0000 2.0000	mg/kg mg/kg mg/kg
IC05S1131	IC05SS113101N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
IC05S1133	IC05SS113301N	0.00	01/22/92	01/24/92 02/14/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	12.0000 18.0000 CB 18.0000 CB		0.2000 3.0000 3.0000	mg/kg mg/kg mg/kg
IC05S1134	IC05SS113401N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	7.7000		0.2000	mg/kg
IC05S1135	IC05SS113501N	0.00	01/22/92	01/24/92 02/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	29.0000 52.0000 C 52.0000 C		0.2000 3.0000 3.0000	mg/kg mg/kg mg/kg
IC05S1136	IC05SS113601N	0.00	01/22/92	01/22/92	FPCB	PCB-1260	24.0000		0.2000	mg/kg
IC05S1137	IC05SS113701N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	35.0000		0.2000	mg/kg
IC05S1138	IC05SS113801N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	29.0000		0.2000	mg/kg
IC05S1139	IC05SS113901N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	150.0000		0.2000	mg/kg
IC05S1140	IC05SS114001N	0.00	01/22/92	02/05/92	FPCB	PCB-1260	550.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1141	IC05SS114101N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	27.0000		0.2000	mg/kg
IC05S1142	IC05SS114201N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	100.0000		0.2000	mg/kg
IC05S1143	IC05SS114301N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	220.0000		0.2000	mg/kg
IC05S1144	IC05SS114401N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	73.0000		0.2000	mg/kg
IC05S1145	IC05SS114501N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	85.0000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	230.0000	C	21.0000	mg/kg
						Total PCB	230.0000	C	21.0000	mg/kg
IC05S1146	IC05SS114601N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	64.0000		0.2000	mg/kg
IC05S1147	IC05SS114701N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	46.0000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	180.0000	C	21.0000	mg/kg
						Total PCB	180.0000	C	21.0000	mg/kg
IC05S1148	IC05SS114801N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	61.0000		0.2000	mg/kg
IC05S1149	IC05SS114901N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	46.0000		0.2000	mg/kg
IC05S1150	IC05SS115001N	0.00	01/22/92	01/30/92	FPCB	PCB-1260	460.0000		0.2000	mg/kg
IC05S1151	IC05SS115101N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	37.0000		0.2000	mg/kg
IC05S1152	IC05SS115201N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
IC05S1153	IC05SS115301N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	34.0000		0.2000	mg/kg
				02/05/92	SW8080	PCB-1260	150.0000	C	22.0000	mg/kg
						Total PCB	150.0000	C	22.0000	mg/kg
IC05S1154	IC05SS115401N	0.00	01/22/92	01/24/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1154	IC05SS115401N	0.00	01/22/92	02/18/92	SW8080	PCB-1260 Total PCB	14.0000 14.0000	CB CB	3.0000 3.0000	mg/kg mg/kg
IC05S1155	IC05SS115501N	0.00	01/22/92	01/24/92 02/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	22.0000 36.0000 36.0000	 C C	0.2000 3.0000 3.0000	mg/kg mg/kg mg/kg
IC05S1156	IC05SS115601N	0.00	01/22/92	01/24/92 02/11/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	15.0000 63.0000 63.0000	 CB CB	0.2000 21.0000 21.0000	mg/kg mg/kg mg/kg
IC05S1157	IC05SS115701N	0.00	01/22/92	01/24/92 02/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	3.0000 4.6000 4.6000	 C C	0.2000 0.6000 0.6000	mg/kg mg/kg mg/kg
IC05S1158	IC05SS115801N	0.00	01/22/92	01/24/92 02/04/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	5.6000 3.1000 3.1000	 C C	0.2000 0.0600 0.0600	mg/kg mg/kg mg/kg
IC05S1159	IC05SS115901N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	4.7000		0.2000	mg/kg
IC05S1160	IC05SS116001N	0.00	01/23/92	01/27/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
IC05S1161	IC05SS116101N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	7.5000		0.2000	mg/kg
IC05S1162	IC05SS116201N	0.00	01/23/92	01/27/92	FPCB	PCB-1260	0.9000		0.2000	mg/kg
IC05S1163	IC05SS116301N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	8.9000		0.2000	mg/kg
IC05S1164	IC05SS116401N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	7.1000		0.2000	mg/kg
IC05S1165	IC05SS116501N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	7.9000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1166	IC05SS116601N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	6.0000		0.2000	mg/kg
IC05S1167	IC05SS116701N	0.00	01/23/92	02/06/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1168	IC05SS116801N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
IC05S1169	IC05SS116901N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	78.0000		0.2000	mg/kg
IC05S1170	IC05SS117001N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	26.0000		0.2000	mg/kg
IC05S1171	IC05SS117101N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	36.0000		0.2000	mg/kg
IC05S1172	IC05SS117201N	0.00	01/23/92	01/27/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S1173	IC05SS117301N	0.00	01/23/92	01/29/92	FPCB	PCB-1260	5.0000		0.2000	mg/kg
IC05S1174	IC05SS117401N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	72.0000		0.2000	mg/kg
IC05S1175	IC05SS117501N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	63.0000		0.2000	mg/kg
IC05S1176	IC05SS117601N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	43.0000		0.2000	mg/kg
IC05S1177	IC05SS117701N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	54.0000		0.2000	mg/kg
IC05S1178	IC05SS117801N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	55.0000		0.2000	mg/kg
IC05S1179	IC05SS117901N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	99.0000		0.2000	mg/kg
IC05S1180	IC05SS118001N	0.00	01/23/92	01/31/92	FPCB	PCB-1260	540.0000		0.2000	mg/kg
IC05S1181	IC05SS118101N	0.00	01/23/92	01/31/92	FPCB	PCB-1260	490.0000		0.2000	mg/kg
IC05S1182	IC05SS118201N	0.00	01/23/92	01/30/92	FPCB	PCB-1260	120.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1183	IC05SS118301N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	160.0000		0.2000	mg/kg
IC05S1184	IC05SS118401N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	157.0000		0.2000	mg/kg
IC05S1185	IC05SS118501N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	730.0000		0.2000	mg/kg
IC05S1186	IC05SS118601N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	73.0000		0.2000	mg/kg
IC05S1187	IC05SS118701N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	50.0000		0.2000	mg/kg
IC05S1188	IC05SS118801N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	42.0000		0.2000	mg/kg
IC05S1189	IC05SS118901N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg
IC05S1190	IC05SS119001N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	22.0000		0.2000	mg/kg
IC05S1191	IC05SS119101N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	18.0000		0.2000	mg/kg
IC05S1192	IC05SS119201N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	31.0000		0.2000	mg/kg
IC05S1193	IC05SS119301N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	28.0000		0.2000	mg/kg
IC05S1194	IC05SS119401N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	42.0000		0.2000	mg/kg
IC05S1196	IC05SS119601N	0.00	01/24/92	02/04/92	FPCB	PCB-1260	110.0000		0.2000	mg/kg
IC05S1197	IC05SS119701N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	20.0000		0.2000	mg/kg
IC05S1198	IC05SS119801N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1199	IC05SS119901N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1200	IC05SS120001N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	9.9000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LMIT	UNITS
IC05S1201	IC05SS120101N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	14.0000		0.2000	mg/kg
IC05S1202	IC05SS120201N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	8.6000		0.2000	mg/kg
IC05S1203	IC05SS120301N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	3.0000		0.2000	mg/kg
IC05S1204	IC05SS120401N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	20.0000		0.2000	mg/kg
IC05S1205	IC05SS120501N	0.00	01/24/92	01/31/92	FPCB	PCB-1260	22.0000		0.2000	mg/kg
IC05S1206	IC05SS120601N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	18.0000		0.2000	mg/kg
IC05S1207	IC05SS120701N	0.00	01/27/92	02/06/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
IC05S1208	IC05SS120801N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	9.1000		0.2000	mg/kg
IC05S1209	IC05SS120901N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	6.1000		0.2000	mg/kg
IC05S1210	IC05SS121001N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1211	IC05SS121101N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	25.0000		0.2000	mg/kg
IC05S1212	IC05SS121201N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	6.9000		0.2000	mg/kg
IC05S1213	IC05SS121301N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	27.0000		0.2000	mg/kg
IC05S1214	IC05SS121401N	0.00	01/27/92	01/31/92	FPCB	PCB-1260	250.0000		0.2000	mg/kg
IC05S1215	IC05SS121501N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	140.0000		0.2000	mg/kg
IC05S1216	IC05SS121601N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	77.0000		0.2000	mg/kg
IC05S1217	IC05SS121701N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	190.0000		0.2000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1218	IC05SS121801N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	130.0000		0.2000	mg/kg
IC05S1219	IC05SS121901N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	160.0000		0.2000	mg/kg
IC05S1220	IC05SS122001N	0.00	01/27/92	01/30/92	FPCB	PCB-1260	68.0000		0.2000	mg/kg
IC05S1221	IC05SS122101N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	18.0000		0.2000	mg/kg
IC05S1222	IC05SS122201N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1223	IC05SS122301N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	2.4000		0.2000	mg/kg
IC05S1224	IC05SS122401N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	7.5000		0.2000	mg/kg
IC05S1225	IC05SS122501N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	5.4000		0.2000	mg/kg
IC05S1226	IC05SS122601N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
IC05S1227	IC05SS122701N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	17.0000		0.2000	mg/kg
IC05S1228	IC05SS122801N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1229	IC05SS122901N	0.00	01/27/92	01/28/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1230	IC05SS123001N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg
IC05S1231	IC05SS123101N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
IC05S1232	IC05SS123201N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	20.0000		0.2000	mg/kg
IC05S1233	IC05SS123301N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	19.0000		0.2000	mg/kg
IC05S1234	IC05SS123401N	0.00	01/28/92	01/30/92	FPCB	PCB-1260	49.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1235	IC05SS123501N	0.00	01/28/92	01/31/92	FPCB	PCB-1260	74.0000		0.2000	mg/kg
IC05S1236	IC05SS123601N	0.00	01/28/92	01/31/92	FPCB	PCB-1260	23.0000		0.2000	mg/kg
IC05S1237	IC05SS123701N	0.00	01/28/92	01/31/92	FPCB	PCB-1260	53.0000		0.2000	mg/kg
IC05S1238	IC05SS123801N	0.00	01/28/92	01/31/92	FPCB	PCB-1260	51.0000		0.2000	mg/kg
IC05S1240	IC05SS124001N	0.00	01/28/92	01/31/92	FPCB	PCB-1260	200.0000		0.2000	mg/kg
IC05S1241	IC05SS124101N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
IC05S1242	IC05SS124201N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	9.4000		0.2000	mg/kg
IC05S1243	IC05SS124301N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	7.3000		0.2000	mg/kg
IC05S1244	IC05SS124401N	0.00	01/28/92	02/06/92	FPCB	PCB-1260	0.9200		0.2000	mg/kg
IC05S1245	IC05SS124501N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	6.2000		0.2000	mg/kg
IC05S1246	IC05SS124601N	0.00	01/28/92	02/06/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
IC05S1247	IC05SS124701N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	5.6000		0.2000	mg/kg
IC05S1248	IC05SS124801N	0.00	01/28/92	01/28/92	FPCB	PCB-1260	7.1000		0.2000	mg/kg
IC05S1249	IC05SS124901N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1250	IC05SS125001N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	5.5000		0.2000	mg/kg
IC05S1251	IC05SS125101N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	4.9000		0.2000	mg/kg
IC05S1252	IC05SS125201N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	6.3000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1253	IC05SS125301N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
IC05S1254	IC05SS125401N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1255	IC05SS125501N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	8.2000		0.2000	mg/kg
IC05S1256	IC05SS125601N	0.00	01/28/92	01/31/92	FPCB	PCB-1260	34.0000		0.2000	mg/kg
IC05S1257	IC05SS125701N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1258	IC05SS125801N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
IC05S1259	IC05SS125901N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	6.0000		0.2000	mg/kg
IC05S1260	IC05SS126001N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	7.9000		0.2000	mg/kg
IC05S1261	IC05SS126101N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	8.0000		0.2000	mg/kg
IC05S1262	IC05SS126201N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
IC05S1263	IC05SS126301N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	19.0000		0.2000	mg/kg
IC05S1264	IC05SS126401N	0.00	01/28/92	01/29/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
IC05S1265	IC05SS126501N	0.00	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarbons (by extraction)	33.0000	E	11.0000	mg/kg
	IC05SS126503N	0.02	01/28/92	03/07/92	SW8280	OCDF	0.4600	@	0.3400	ng/g
						Octachlorodibenzodioxin	2.4000		0.3700	ng/g
IC05S1266	IC05SS126602N	0.01	01/28/92	02/06/92	SW8270	Bis(2-ethylhexyl)phthalate	0.5800	B@ E	0.4200	ug/g

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## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1266	IC05SS126603N	0.02	01/28/92	03/11/92	SW8280	QCDF Octachlorodibenzodioxin	0.2800 @ 1.0000 @		0.2400 ng/g 0.3000 ng/g	
IC05S1267	IC05SS126702N	0.01	01/28/92	02/06/92	SW8270	Bis(2-ethylhexyl)phthalat e	0.4200 B@	E	0.3900 ug/g	
	IC05SS126703N	0.02	01/28/92	03/06/92	SW8280	Octachlorodibenzodioxin	0.7300 @		0.5000 ng/g	
IC05S1268	IC05SS126801N	0.00	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	49.0000	E	12.0000 mg/kg	
	IC05SS126802N	0.01	01/28/92	02/06/92	SW8270	Benzo(b)fluoranthene Benzo(k)fluoranthene Bis(2-ethylhexyl)phthalat e Butylbenzylphthalate Chrysene Fluoranthene Pyrene di-n-Octyl Phthalate	2.0000 Z@ 2.0000 Z@ 3.3000 B 0.9100 @ 0.4900 @ 0.7500 @ 0.6400 @ 0.4500 @	E E B	0.4100 ug/g 0.4100 ug/g 0.4100 ug/g 0.4100 ug/g 0.4100 ug/g 0.4100 ug/g 0.4100 ug/g 0.4100 ug/g 0.4100 ug/g	
	IC05SS126803N	0.02	01/28/92	03/07/92	SW8280	HpCDF OCDF Octachlorodibenzodioxin	0.6100 @ 0.7400 @ 1.2000 @		0.2300 ng/g 0.3600 ng/g 0.3900 ng/g	
IC05S1269	IC05SS126902N	0.01	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	94.0000	E	12.0000 mg/kg	
	IC05SS126903N	0.02	01/28/92	03/07/92	SW8280	HpCDF HxCDF OCDF Octachlorodibenzodioxin PeCDF	4.8000 8.2000 5.3000 0.7700 @ 14.0000		0.2500 ng/g 0.1600 ng/g 0.4800 ng/g 0.4900 ng/g 0.1000 ng/g	

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1269	IC05SS126903N	0.02	01/28/92	03/07/92	SW8280	Tetrachlorodibenzofuran	14.0000			0.0820 ng/g
IC05S1270	IC05SS127001N	0.00	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarbons (by extraction)	58.0000	E		12.0000 mg/kg
	IC05SS127002N	0.01	01/28/92	02/06/92	SW8270	1,2,4-Trichlorobenzene	1.1000	Q		0.4300 ug/g
						Bis(2-ethylhexyl)phthalate	0.5100	BQ	E	0.4300 ug/g
	IC05SS127003N	0.02	01/28/92	03/07/92	SW8280	HpCDF	0.8800	Q		0.2700 ng/g
						HxCDF	1.7000			0.1700 ng/g
						OCDF	0.8300	Q		0.5900 ng/g
						Octachlorodibenzodioxin	0.8800	Q		0.6700 ng/g
						PeCDF	2.9000			0.1100 ng/g
						Tetrachlorodibenzofuran	1.8000			0.0860 ng/g
IC05S1271	IC05SS127101N	0.00	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarbons (by extraction)	8400.0000	E		1100.0000 mg/kg
IC05S1272	IC05SS127201N	0.00	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarbons (by extraction)	8700.0000	E		1200.0000 mg/kg
	IC05SS127202N	0.01	01/28/92	02/07/92	SW8270	1,2,4-Trichlorobenzene	69.0000	Q		23.0000 ug/g
IC05S1273	IC05SS127301N	0.00	01/28/92	02/21/92	8015E	Total Petroleum Hydrocarbons (by extraction)	3400.0000	E		220.0000 mg/kg
	IC05SS127302N	0.01	01/28/92	02/06/92	SW8270	1,2,4-Trichlorobenzene	12.0000	Q		9.2000 ug/g
IC05S1274	IC05SS127401N	0.02	01/28/92	02/20/92	8015E	Total Petroleum Hydrocarbons (by extraction)	6300.0000	E		530.0000 mg/kg
IC05S1275	IC05SS127501N	0.00	02/03/92	02/03/92	FPC8	PCB-1260	13.0000			0.2000 mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1275	IC05SS127501N	0.00	02/03/92	02/27/92	SW8080	PCB-1260 Total PCB	12.0000 C 12.0000 C		0.3000 3.0000	mg/kg mg/kg
IC05S1276	IC05SS127601N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
IC05S1277	IC05SS127701N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	7.2000		0.2000	mg/kg
IC05S1278	IC05SS127801N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S1279	IC05SS127901N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	8.9000		0.2000	mg/kg
				02/27/92	SW8080	PCB-1260	10.0000 C		0.7000	mg/kg
						Total PCB	10.0000 C		6.0000	mg/kg
IC05S1280	IC05SS128001N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	9.7000		0.2000	mg/kg
IC05S1281	IC05SS128101N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	4.8000		0.2000	mg/kg
IC05S1282	IC05SS128201N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	4.9000		0.2000	mg/kg
IC05S1283	IC05SS128301N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	3.7000		0.2000	mg/kg
IC05S1284	IC05SS128401N	0.00	02/03/92	02/04/92	FPCB	PCB-1260	0.8500		0.2000	mg/kg
IC05S1285	IC05SS128501N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	3.7000		0.2000	mg/kg
IC05S1286	IC05SS128601N	0.00	02/03/92	02/03/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1287	IC05SS128701N	0.00	02/03/92	02/04/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg
IC05S1292	IC05SS129201N	0.00	02/03/92	02/04/92	FPCB	PCB-1260	0.6900		0.2000	mg/kg
IC05S1293	IC05SS129301N	0.00	02/03/92	02/04/92	FPCB	PCB-1260	0.2500		0.2000	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

**RADIAN**  
 CORPORATION

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1294	IC05SS129401N	0.00	02/03/92	02/04/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
IC05S1297	IC05SS129701N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.2300		0.2000	mg/kg
IC05S1306	IC05SS130601N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.3300		0.2000	mg/kg
IC05S1307	IC05SS130701N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	1.9000		0.2000	mg/kg
IC05S1308	IC05SS130801N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.6700		0.2000	mg/kg
IC05S1309	IC05SS130901N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.2700		0.2000	mg/kg
IC05S1310	IC05SS131001N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.2000		0.2000	mg/kg
IC05S1311	IC05SS131101N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.7200		0.2000	mg/kg
IC05S1312	IC05SS131201N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S1313	IC05SS131301N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.3300		0.2000	mg/kg
IC05S1315	IC05SS131501N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.7800		0.2000	mg/kg
IC05S1317	IC05SS131701N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.7400		0.2000	mg/kg
IC05S1318	IC05SS131801N	0.00	02/04/92	02/05/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S1322	IC05SS132201N	0.00	02/05/92	02/06/92	FPCB	PCB-1260	0.4300		0.2000	mg/kg
IC05S1324	IC05SS132401N	0.00	02/05/92	02/06/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S1335	IC05SS133501N	0.00	02/05/92	02/06/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S1336	IC05SS133601N	0.00	02/05/92	02/06/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1339	IC05SS133901N	0.00	02/05/92	02/06/92	FPCB	PCB-1260	1.7000		0.2000	mg/kg
IC05S1340	IC05SS134001N	0.00	02/05/92	02/06/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg
IC05S1345	IC05SS134501N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S1346	IC05SS134601N	0.00	02/07/92	02/10/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
IC05S1349	IC05SS134901N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.3500		0.2000	mg/kg
IC05S1352	IC05SS135201N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.5800		0.2000	mg/kg
IC05S1357	IC05SS135701N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.5000		0.2000	mg/kg
IC05S1358	IC05SS135801N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.7200		0.2000	mg/kg
IC05S1359	IC05SS135901N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
IC05S1360	IC05SS136001N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.6700		0.2000	mg/kg
IC05S1361	IC05SS136101N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.2300		0.2000	mg/kg
IC05S1363	IC05SS136301N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.2200		0.2000	mg/kg
IC05S1367	IC05SS136701N	0.00	02/07/92	02/10/92	FPCB	PCB-1260	32.0000		0.2000	mg/kg
IC05S1368	IC05SS136801N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.3100		0.2000	mg/kg
IC05S1378	IC05SS137801N	0.00	02/07/92	02/07/92	FPCB	PCB-1260	0.6200		0.2000	mg/kg
IC05S1380	IC05SS138001N	0.00	02/10/92	02/10/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S1401	IC05SS140101N	0.00	02/10/92	02/10/92	FPCB	PCB-1260	0.2700		0.2000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1404	IC05SS140401N	0.00	02/10/92	02/10/92	FPCB	PCB-1260	0.7000		0.2000	mg/kg
IC05S1414	IC05SS141401N	0.00	02/11/92	02/28/92	SW8080	PCB-1260 Total PCB	0.0400 C 0.0400 C		0.0300 0.3000	mg/kg mg/kg
IC05S1422	IC05SS142201N	0.00	02/11/92	02/11/92 02/28/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	0.2000 0.2100 C 0.2100 C		0.2000 0.0300 0.3000	mg/kg mg/kg mg/kg
IC05S1423	IC05SS142301N	0.00	02/11/92	02/11/92	FPCB	PCB-1260	0.9000		0.2000	mg/kg
IC05S1431	IC05SS143101N	0.00	02/11/92	02/11/92	FPCB	PCB-1260	0.3800		0.2000	mg/kg
IC05S1432	IC05SS143201N	0.00	02/11/92	02/11/92	FPCB	PCB-1260	0.5500		0.2000	mg/kg
IC05S1442	IC05SS144201N	0.00	02/11/92	02/12/92	FPCB	PCB-1260	0.2900		0.2000	mg/kg
IC05S1444	IC05SS144401N	0.00	02/11/92	02/12/92	FPCB	PCB-1260	0.2400		0.2000	mg/kg
IC05S1445	IC05SS144501N	0.00	02/11/92	02/12/92	FPCB	PCB-1260	0.7100		0.2000	mg/kg
IC05S1446	IC05SS144601N	0.00	02/11/92	02/12/92	FPCB	PCB-1260	0.3300		0.2000	mg/kg
IC05S1459	IC05SS145901N	0.00	02/14/92	02/14/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg
IC05S1465	IC05SS146501N	0.00	02/14/92	02/14/92	FPCB	PCB-1260	0.9200		0.2000	mg/kg
IC05S1466	IC05SS146601N	0.00	02/14/92	02/14/92	FPCB	PCB-1260	0.9000		0.2000	mg/kg
IC05S1493	IC05SS149301N	0.00	02/26/92	02/27/92	FPCB	PCB-1260	28.0000		0.2000	mg/kg
IC05S1494	IC05SS149401N	0.00	02/26/92	02/27/92	FPCB	PCB-1260	5.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1495	IC05SS149501N	0.00	02/26/92	02/27/92	FPCB	PCB-1260	16.0000		0.2000	mg/kg
IC05S1496	IC05SS149601N	0.00	02/26/92	02/28/92	FPCB	PCB-1260	240.0000		0.2000	mg/kg
IC05S1505	IC05SS150501N	0.00	02/28/92	03/03/92	FPCB	PCB-1260	530.0000		0.2000	mg/kg
IC05S1519	IC05SS151901N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	170.0000		0.2000	mg/kg
IC05S1520	IC05SS152001N	0.00	03/04/92	03/05/92	FPCB	PCB-1260	1600.0000		0.2000	mg/kg
IC05S1521	IC05SS152101N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	420.0000		0.2000	mg/kg
IC05S1522	IC05SS152201N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	140.0000		0.2000	mg/kg
IC05S1523	IC05SS152301N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg
IC05S1524	IC05SS152401N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	470.0000		0.2000	mg/kg
IC05S1525	IC05SS152501N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	6.1000		0.2000	mg/kg
IC05S1526	IC05SS152601N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1527	IC05SS152701N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	31.0000		0.2000	mg/kg
IC05S1528	IC05SS152801N	0.00	03/04/92	03/04/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05S1549	IC05SS154901N	0.00	03/06/92	03/06/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S1550	IC05SS155001N	0.00	03/06/92	03/06/92	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S1551	IC05SS155101N	0.00	03/06/92	03/06/92	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S1552	IC05SS155201N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	6.3000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1553	IC05SS155301N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	6.8000		0.2000	mg/kg
IC05S1554	IC05SS155401N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	4.8000		0.2000	mg/kg
IC05S1555	IC05SS155501N	0.00	03/06/92	03/10/92	FPCB	PCB-1260	8.3000		0.2000	mg/kg
IC05S1556	IC05SS155601N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	14.0000		0.2000	mg/kg
IC05S1557	IC05SS155701N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	16.0000		0.2000	mg/kg
IC05S1558	IC05SS155801N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg
IC05S1559	IC05SS155901N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	3.6000		0.2000	mg/kg
IC05S1560	IC05SS156001N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	0.8800		0.2000	mg/kg
IC05S1561	IC05SS156101N	0.00	03/06/92	03/10/92	FPCB	PCB-1260	3.6000		0.2000	mg/kg
IC05S1562	IC05SS156201N	0.00	03/06/92	03/10/92	FPCB	PCB-1260	24.0000		0.2000	mg/kg
IC05S1563	IC05SS156301N	0.00	03/06/92	03/09/92	FPCB	PCB-1260	22.0000		0.2000	mg/kg
IC05S1564	IC05SS156401N	0.00	03/06/92	03/10/92	FPCB	PCB-1260	25.0000		0.2000	mg/kg
IC05S1569	IC05SS156901N	0.60	03/06/92	03/09/92	FPCB	PCB-1260	0.8200		0.2000	mg/kg
IC05S1570	IC05SS157001N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.8400		0.2000	mg/kg
				03/18/92	SW8080	PCB-1260	0.5100	BC	0.3000	MG/KG
						Total PCB	0.5100	BC	0.3000	MG/KG
IC05S1571	IC05SS157101N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.3800		0.2000	mg/kg
				03/18/92	SW8080	PCB-1260	0.9300	BC	0.3000	MG/KG
						Total PCB	0.9300	BC	0.3000	MG/KG

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1572	IC05SS157201N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S1573	IC05SS157301N	0.00	03/09/92	03/20/92	SW8080	PCB-1260	0.8900	BC	0.2000	MG/KG
						Total PCB	0.8900	BC	0.2000	MG/KG
IC05S1577	IC05SS157701N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S1578	IC05SS157801N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.2000		0.2000	mg/kg
IC05S1582	IC05SS158201N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.2400		0.2000	mg/kg
IC05S1584	IC05SS158401N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.4000		0.2000	mg/kg
IC05S1586	IC05SS158601N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.2400		0.2000	mg/kg
IC05S1587	IC05SS158701N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg
IC05S1588	IC05SS158801N	0.00	03/09/92	03/10/92	FPCB	PCB-1260	4.4000		0.2000	mg/kg
IC05S1591	IC05SS159101N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	0.2300		0.2000	mg/kg
					SW8080	PCB-1260	0.5100	BC	0.2000	MG/KG
						Total PCB	0.5100	BC	0.2000	MG/KG
IC05S1592	IC05SS159201N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	0.3500		0.2000	mg/kg
					SW8080	PCB-1260	0.8200	BC	0.3000	MG/KG
						Total PCB	0.8200	BC	0.3000	MG/KG
IC05S1593	IC05SS159301N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	0.2500		0.2000	mg/kg
IC05S1596	IC05SS159601N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S1598	IC05SS159801N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1599	IC05SS159901N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	0.2000		0.2000	mg/kg
IC05S1605	IC05SS160501N	0.60	03/10/92	03/11/92	FPCB	PCB-1260	0.6000		0.2000	mg/kg
IC05S1608	IC05SS160801N	0.00	03/11/92	03/12/92	FPCB	PCB-1260	4.2000		0.2000	mg/kg
IC05S1609	IC05SS160901N	0.00	03/11/92	03/31/92	SW8080	PCB-1260 Total PCB	0.0640 C 0.0640 C		0.0400 0.4000	mg/kg mg/kg
IC05S1610	IC05SS161001N	0.00	03/11/92	03/12/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S1611	IC05SS161101N	0.00	03/11/92	03/12/92	FPCB	PCB-1260	0.8900		0.2000	mg/kg
IC05S1612	IC05SS161201N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S1613	IC05SS161301N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	7.9000		0.2000	mg/kg
IC05S1614	IC05SS161401N	0.60	03/12/92	03/13/92 03/31/92	FPCB SW8080	PCB-1260 PCB-1260 Total PCB	1200.0000 540.0000 C 540.0000 C		0.2000 36.0000 360.0000	mg/kg mg/kg mg/kg
IC05S1616	IC05SS161601N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	2.4000		0.2000	mg/kg
IC05S1617	IC05SS161701N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
IC05S1618	IC05SS161801N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg
IC05S1619	IC05SS161901N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	0.6800		0.2000	mg/kg
IC05S1621	IC05SS162101N	0.60	03/12/92	03/13/92	FPCB	PCB-1260	7.7000		0.2000	mg/kg
IC05S1622	IC05SS162201N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	4.6000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1623	IC05SS162301N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	5.6000		0.2000	mg/kg
IC05S1624	IC05SS162401N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	0.9600		0.2000	mg/kg
IC05S1625	IC05SS162501N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05S1626	IC05SS162601N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
IC05S1627	IC05SS162701N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	1.3000		0.2000	mg/kg
				03/27/92	SW8080	PCB-1260	3.0000	C	0.6000	mg/kg
						Total PCB	3.0000	C	0.6000	mg/kg
IC05S1628	IC05SS162801N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	0.5300		0.2000	mg/kg
IC05S1629	IC05SS162901N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	18.0000		0.2000	mg/kg
IC05S1630	IC05SS163001N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	9.4000		0.2000	mg/kg
IC05S1631	IC05SS163101N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg
IC05S1632	IC05SS163201N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	12.0000		0.2000	mg/kg
IC05S1633	IC05SS163301N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S1634	IC05SS163401N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	2.9000		0.2000	mg/kg
IC05S1635	IC05SS163501N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	3.6000		0.2000	mg/kg
IC05S1637	IC05SS163701N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	4.9000		0.2000	mg/kg
IC05S1638	IC05SS163801N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
IC05S1639	IC05SS163901N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05SS1639	IC05SS163901N	0.00	03/13/92	03/31/92	SW8080	PCB-1260 Total PCB	12.0000 C 12.0000 C		2.0000 2.0000	mg/kg mg/kg
IC05SS1640	IC05SS164001N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	6.9000		0.2000	mg/kg
IC05SS1641	IC05SS164101N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	5.6000		0.2000	mg/kg
IC05SS1642	IC05SS164201N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	8.7000		0.2000	mg/kg
IC05SS1643	IC05SS164301N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
IC05SS1644	IC05SS164401N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
IC05SS1645	IC05SS164501N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	3.8000		0.2000	mg/kg
IC05SS1646	IC05SS164601N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	4.5000		0.2000	mg/kg
IC05SS1647	IC05SS164701N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05SS1648	IC05SS164801N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	4.1000		0.2000	mg/kg
IC05SS1649	IC05SS164901N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	2.4000		0.2000	mg/kg
IC05SS1650	IC05SS165001N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	11.0000		0.2000	mg/kg
IC05SS1651	IC05SS165101N	0.00	03/13/92	03/13/92	FPCB	PCB-1260	4.7000		0.2000	mg/kg
IC05SS1652	IC05SS165201N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	78.0000		0.2000	mg/kg
				03/31/92	SW8080	PCB-1260	67.0000 C		3.0000	mg/kg
						Total PCB	67.0000 C		3.0000	mg/kg
IC05SS1653	IC05SS165301N	0.00	03/13/92	03/16/92	FPCB	PCB-1260	32.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05SS1655	IC05SS165501N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.3400		0.2000	mg/kg
IC05SS1659	IC05SS165901N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.2000		0.2000	mg/kg
IC05SS1661	IC05SS166101N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.8800		0.2000	mg/kg
IC05SS1664	IC05SS166401N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.8300		0.2000	mg/kg
IC05SS1667	IC05SS166701N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.2400		0.2000	mg/kg
IC05SS1669	IC05SS166901N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.7000		0.2000	mg/kg
IC05SS1670	IC05SS167001N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.8300		0.2000	mg/kg
IC05SS1671	IC05SS167101N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.7700		0.2000	mg/kg
IC05SS1672	IC05SS167201N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.6600		0.2000	mg/kg
IC05SS1673	IC05SS167301N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
				03/27/92	SW8080	PCB-1260	5.1000	C	2.0000	mg/kg
						Total PCB	5.1000	C	2.0000	mg/kg
IC05SS1674	IC05SS167401N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.7600		0.2000	mg/kg
IC05SS1675	IC05SS167501N	0.00	03/16/92	03/19/92	FPCB	PCB-1260	4.4000		0.2000	mg/kg
IC05SS1676	IC05SS167601N	0.00	03/16/92	03/19/92	FPCB	PCB-1260	3.6000		0.2000	mg/kg
IC05SS1677	IC05SS167701N	0.00	03/16/92	03/16/92	FPCB	PCB-1260	0.6600		0.2000	mg/kg
IC05SS1681	IC05SS168101N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.9200		0.2000	mg/kg
				04/01/92	SW8080	PCB-1260	1.7000	C	0.4000	mg/kg
						Total PCB	1.7000	C	0.4000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1682	IC05SS168201N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.5300		0.2000	mg/kg
IC05S1683	IC05SS168301N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.8600		0.2000	mg/kg
IC05S1684	IC05SS168401N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.8400		0.2000	mg/kg
IC05S1685	IC05SS168501N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	5.3000		0.2000	mg/kg
IC05S1686	IC05SS168601N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	5.0000		0.2000	mg/kg
IC05S1687	IC05SS168701N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.6800		0.2000	mg/kg
IC05S1688	IC05SS168801N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.8200		0.2000	mg/kg
IC05S1689	IC05SS168901N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.9000		0.2000	mg/kg
IC05S1690	IC05SS169001N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S1691	IC05SS169101N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S1694	IC05SS169401N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	2.8000		0.2000	mg/kg
IC05S1695	IC05SS169501N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
IC05S1696	IC05SS169601N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
IC05S1697	IC05SS169701N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S1699	IC05SS169901N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.6000		0.2000	mg/kg
IC05S1700	IC05SS170001N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	4.5000		0.2000	mg/kg
IC05S1701	IC05SS170101N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	0.9300		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1702	IC05SS170201N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	7.4000		0.2000	mg/kg
IC05S1704	IC05SS170401N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	5.4000		0.2000	mg/kg
IC05S1706	IC05SS170601N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
IC05S1708	IC05SS170801N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	15.0000		0.2000	mg/kg
				04/01/92	SW8080	PCB-1260	4.3000	C	2.0000	mg/kg
						Total PCB	4.3000	C	2.0000	mg/kg
IC05S1709	IC05SS170901N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	2.8000		0.2000	mg/kg
IC05S1710	IC05SS171001N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S1713	IC05SS171301N	0.00	03/17/92	03/18/92	FPCB	PCB-1260	1.4000		0.2000	mg/kg
IC05S1714	IC05SS171401N	0.00	03/17/92	03/19/92	FPCB	PCB-1260	5.6000		0.2000	mg/kg
IC05S1715	IC05SS171501N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.7800		0.2000	mg/kg
IC05S1716	IC05SS171601N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.4000		0.2000	mg/kg
IC05S1717	IC05SS171701N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.8900		0.2000	mg/kg
IC05S1718	IC05SS171801N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	8.1000		0.2000	mg/kg
IC05S1719	IC05SS171901N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.6600		0.2000	mg/kg
IC05S1720	IC05SS172001N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	4.3000		0.2000	mg/kg
IC05S1722	IC05SS172201N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	10.0000		0.2000	mg/kg
IC05S1723	IC05SS172301N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	2.7000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1724	IC05SS172401N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	1.8000		0.2000	mg/kg
IC05S1726	IC05SS172601N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	19.0000		0.2000	mg/kg
IC05S1727	IC05SS172701N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	6.4000		0.2000	mg/kg
IC05S1728	IC05SS172801N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.3700		0.2000	mg/kg
IC05S1729	IC05SS172901N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	3.0000		0.2000	mg/kg
IC05S1730	IC05SS173001N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.2600		0.2000	mg/kg
IC05S1731	IC05SS173101N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	2.1000		0.2000	mg/kg
IC05S1732	IC05SS173201N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	1.5000		0.2000	mg/kg
IC05S1733	IC05SS173301N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	2.3000		0.2000	mg/kg
IC05S1734	IC05SS173401N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.7000		0.2000	mg/kg
IC05S1735	IC05SS173501N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	1.2000		0.2000	mg/kg
IC05S1736	IC05SS173601N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	3.6000		0.2000	mg/kg
IC05S1738	IC05SS173801N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	2.0000		0.2000	mg/kg
IC05S1741	IC05SS174101N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.3600		0.2000	mg/kg
IC05S1742	IC05SS174201N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S1743	IC05SS174301N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.3800		0.2000	mg/kg
IC05S1744	IC05SS174401N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.3300		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1746	IC05SS174601N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	2.8000		0.2000	mg/kg
IC05S1748	IC05SS174801N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	0.3200		0.2000	mg/kg
IC05S1749	IC05SS174901N	0.00	03/18/92	03/20/92	FPCB	PCB-1260	6.4000		0.2000	mg/kg
IC05S1750	IC05SS175001N	0.00	03/18/92	03/19/92	FPCB	PCB-1260	1.1000		0.2000	mg/kg
IC05S1751	IC05SS175101N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
				04/02/92	SW8080	PCB-1260	11.0000 C		1.0000	mg/kg
						Total PCB	11.0000 C		1.0000	mg/kg
IC05S1752	IC05SS175201N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	5.3000		0.2000	mg/kg
IC05S1753	IC05SS175301N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	3.6000		0.2000	mg/kg
IC05S1754	IC05SS175401N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	0.7200		0.2000	mg/kg
IC05S1755	IC05SS175501N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	4.9000		0.2000	mg/kg
IC05S1756	IC05SS175601N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	2.5000		0.2000	mg/kg
IC05S1757	IC05SS175701N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	3.1000		0.2000	mg/kg
IC05S1758	IC05SS175801N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	5.7000		0.2000	mg/kg
IC05S1759	IC05SS175901N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	9.7000		0.2000	mg/kg
IC05S1760	IC05SS176001N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	4.4000		0.2000	mg/kg
IC05S1761	IC05SS176101N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	16.0000		0.2000	mg/kg
IC05S1762	IC05SS176201N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	13.0000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1763	IC05SS176301N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	9.4000		0.2000	mg/kg
IC05S1766	IC05SS176601N	0.00	03/19/92	03/23/92	FPCB	PCB-1260	26.0000		0.2000	mg/kg
				04/02/92	SW8080	PCB-1260	64.0000	C	12.0000	mg/kg
						Total PCB	64.0000	C	12.0000	mg/kg
IC05S1767	IC05SS176701N	0.00	03/19/92	03/23/92	FPCB	PCB-1260	30.0000		0.2000	mg/kg
IC05S1768	IC05SS176801N	0.00	03/19/92	03/23/92	FPCB	PCB-1260	2000.0000		0.2000	mg/kg
				04/02/92	SW8080	PCB-1260	2700.0000	C	100.0000	mg/kg
						Total PCB	2700.0000	C	100.0000	mg/kg
IC05S1769	IC05SS176901N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	7.1000		0.2000	mg/kg
IC05S1770	IC05SS177001N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	17.0000		0.2000	mg/kg
IC05S1771	IC05SS177101N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	1.0000		0.2000	mg/kg
IC05S1772	IC05SS177201N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
IC05S1773	IC05SS177301N	0.00	03/19/92	03/23/92	FPCB	PCB-1260	0.3900		0.2000	mg/kg
IC05S1774	IC05SS177401N	0.00	03/19/92	03/23/92	FPCB	PCB-1260	0.5700		0.2000	mg/kg
IC05S1775	IC05SS177501N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05S1776	IC05SS177601N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	8.4000		0.2000	mg/kg
IC05S1777	IC05SS177701N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	5.0000		0.2000	mg/kg
IC05S1778	IC05SS177801N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	3.9000		0.2000	mg/kg
IC05S1779	IC05SS177901N	0.00	03/19/92	03/20/92	FPCB	PCB-1260	3.4000		0.2000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1918	IC05SS191802N	0.51	03/31/92	04/21/92	SW8280	HpCDF	0.0306		0.0120	ug/kg
						HxCDF	0.0363		0.0072	ug/kg
						Octachlorodibenzodioxin	0.7090		0.0170	ug/kg
						PeCDF	0.0579		0.0056	ug/kg
						Tetrachlorodibenzofuran	0.0125		0.0034	ug/kg
IC05S1919	IC05SS191901N	0.50	03/31/92	04/01/92	FPCB	PCB-1260	2.0000		0.2000	mg/kg
	IC05SS191902N	0.51	03/31/92	04/21/92	SW8280	1,2,3,4,6,7,8-HpCDD	0.1140		0.0000	ug/kg
						1,2,3,4,7,8-HxCDF	0.1290		0.0170	ug/kg
						2,3,7,8-TCDF	0.0334		0.0150	ug/kg
						Heptachlorodibenzodioxin	0.1140		0.0390	ug/kg
						HpCDF	0.0834		0.0340	ug/kg
						HxCDF	0.2430		0.0210	ug/kg
						Octachlorodibenzodioxin	1.0600		0.0510	ug/kg
						PeCDD	0.0784		0.0350	ug/kg
						PeCDF	0.1540		0.0240	ug/kg
						Tetrachlorodibenzofuran	0.0334		0.0150	ug/kg
							21.0000		0.2000	mg/kg
IC05S1920	IC05SS192001N	0.50	03/31/92	04/02/92	FPCB	PCB-1260				
	IC05SS192002N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,6,7,8-HpCDD	0.1570		0.0170	ug/kg
						1,2,3,4,6,7,8-HpCDF	0.2030		0.0090	ug/kg
						1,2,3,4,7,8-HxCDF	0.2410		0.0061	ug/kg
						1,2,3,6,7,8-HxCDF	0.0236		0.0049	ug/kg
						2,3,4,6,7,8-HxCDF	0.0249		0.0061	ug/kg
						2,3,4,7,8-PCDF	0.1060		0.0067	ug/kg
						2,3,7,8-TCDF	0.1200		0.0037	ug/kg
						Heptachlorodibenzodioxin	0.1570		0.0170	ug/kg
						HpCDF	0.3800		0.0130	ug/kg
						HxCDF	0.3300		0.0076	ug/kg
						OCDF	0.2420		0.0160	ug/kg
						Octachlorodibenzodioxin	2.6900		0.0250	ug/kg

## MCCLELLAN OUB RJ SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1920	IC05SS192002N	0.51	03/31/92	04/22/92	SW8280	PecCDF	0.9030		0.0067	ug/kg
						Tetrachlorodibenzofuran	0.1450		0.0037	ug/kg
IC05S1921	IC05SS192101N	0.50	03/31/92	04/02/92	FPCB	PCB-1260	4.0000		0.2000	mg/kg
	IC05SS192102N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,6,7,8-HpCDD	0.2350		0.0000	ug/kg
						2,3,4,7,8-PCDF	0.0192		0.0050	ug/kg
						2,3,7,8-TCDD	0.0146		0.0041	ug/kg
						Heptachlorodibenzodioxin	0.2350		0.0140	ug/kg
						Hexachlorodibenzodioxin	0.0278		0.0089	ug/kg
						HpCDF	0.1120		0.0120	ug/kg
						HxCDF	6.1440		0.0069	ug/kg
						OCDF	0.1130		0.0170	ug/kg
						Octachlorodibenzodioxin	3.9300		0.0270	ug/kg
						PecCDF	0.0327		0.0050	ug/kg
						TCDD	0.0146		0.0041	ug/kg
						Tetrachlorodibenzofuran	0.0318		0.0028	ug/kg
IC05S1926	IC05SS192601N	0.50	03/31/92	04/02/92	FPCB	PCB-1260	14.0000		0.2000	mg/kg
	IC05SS192602N	0.51	03/31/92	04/29/92	SW8280	1,2,3,4,6,7,8-HpCDD	0.1150		0.0001	ug/kg
						1,2,3,4,7,8-HxCDF	0.1410		0.0001	ug/kg
						1,2,3,6,7,8-HxCDF	0.0368		0.0001	ug/kg
						1,2,3,7,8-PCDF	0.0203		0.0000	ug/kg
						2,3,4,6,7,8-HxCDF	0.0389		0.0001	ug/kg
						2,3,4,7,8-PCDF	0.0910		0.0000	ug/kg
						2,3,7,8-TCDF	0.0886		0.0000	ug/kg
						Heptachlorodibenzodioxin	0.2500		0.0001	ug/kg
						HxCDF	0.3960		0.0001	ug/kg
						OCDF	0.1090		0.0001	ug/kg
						Octachlorodibenzodioxin	1.2000		0.0002	ug/kg
						PecCDF	0.3470		0.0001	ug/kg
						Tetrachlorodibenzofuran	0.1680		0.0000	ug/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1927	IC05SS192701N	0.50	03/31/92	04/02/92	FPCB	PCB-1260	2.5000		0.2000	mg/kg
						1,2,3,4,6,7,8-HpCDD	0.0900		0.0000	ug/kg
	IC05SS192702N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,6,7,8-HpCDF	0.0458		0.0160	ug/kg
						2,3,7,8-TCDF	0.0161		0.0064	ug/kg
						Heptachlorodibenzodioxin	0.0900		0.0300	ug/kg
						HpCDF	0.0545		0.0240	ug/kg
						HxCDF	0.0368		0.0140	ug/kg
						Octachlorodibenzodioxin	1.2600		0.0460	ug/kg
						Tetrachlorodibenzofuran	0.0161		0.0064	ug/kg
						PCB-1260	57.0000		0.2000	mg/kg
IC05S1930	IC05SS193001N	0.50	03/31/92	04/02/92	FPCB	PCB-1260				
						1,2,3,4,6,7,8-HpCDD	0.1080		0.0350	ug/kg
	IC05SS193002N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,6,7,8-HpCDF	0.4640		0.0200	ug/kg
						1,2,3,4,7,8-HxCDF	0.5940		0.0140	ug/kg
						1,2,3,6,7,8-HxCDF	0.1310		0.0110	ug/kg
						1,2,3,7,8-PCDF	0.1220		0.0150	ug/kg
						2,3,4,6,7,8-HxCDF	0.1600		0.0140	ug/kg
						2,3,4,7,8-PCDF	0.4940		0.0150	ug/kg
						2,3,7,8-TCDF	0.3340		0.0083	ug/kg
						Heptachlorodibenzodioxin	0.1080		0.0350	ug/kg
IC05S1931	IC05SS193101N	0.50	03/31/92	04/02/92	FPCB	HpCDF	0.7660		0.0290	ug/kg
						HxCDF	1.8600		0.0170	ug/kg
	IC05SS193102N	0.51	03/31/92	04/29/92	SW8280	OCDF	0.4470		0.0330	ug/kg
						Octachlorodibenzodioxin	1.5600		0.0500	ug/kg
						PeCDF	3.0900		0.0150	ug/kg
						Tetrachlorodibenzofuran	0.7410		0.0083	ug/kg
						PCB-1260	490.0000		0.2000	mg/kg
						1,2,3,4,6,7,8-HpCDD	0.1860		0.0110	ug/kg
						1,2,3,4,6,7,8-HpCDF	3.1400		0.0065	ug/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1931	IC05SS193102N	0.51	03/31/92	04/29/92	SW8280	1,2,3,4,7,8,9-HpCDF	0.6020		0.0082	ug/kg
						1,2,3,4,7,8-HxCDF	4.8700		0.0050	ug/kg
						1,2,3,6,7,8-HxCDF	0.7300		0.0047	ug/kg
						1,2,3,7,8,9-HxCDF	0.2800		0.0060	ug/kg
						1,2,3,7,8-PCDF	0.4890		0.0031	ug/kg
						2,3,4,6,7,8-HxCDF	0.7790		0.0053	ug/kg
						2,3,4,7,8-PCDF	1.8600		0.0034	ug/kg
						2,3,7,8-TCDF	2.7400		0.0023	ug/kg
						Heptachlorodibenzodioxin	0.3490		0.0110	ug/kg
						HpCDF	5.6100		0.0082	ug/kg
						HxCDF	12.3000		0.0060	ug/kg
						OCDF	4.1600		0.0090	ug/kg
						Octachlorodibenzodioxin	1.7100		0.0130	ug/kg
						PeCDF	12.7000		0.0034	ug/kg
						Tetrachlorodibenzofuran	8.7800		0.0023	ug/kg
IC05S1932	IC05SS193201N	0.50	03/31/92	04/03/92	FPCB	PCB-1260	550.0000		0.2000	mg/kg
						1,2,3,4,6,7,8-HpCDD	0.2380		0.0280	ug/kg
						1,2,3,4,6,7,8-HpCDF	4.1200		0.0190	ug/kg
						1,2,3,4,7,8,9-HpCDF	0.8020		0.0240	ug/kg
						1,2,3,4,7,8-HxCDF	7.8600		0.0150	ug/kg
						1,2,3,6,7,8-HxCDF	0.9750		0.0140	ug/kg
						1,2,3,7,8,9-HxCDF	0.4370		0.0180	ug/kg
						1,2,3,7,8-PCDF	0.6480		0.0089	ug/kg
						2,3,4,6,7,8-HxCDF	1.2000		0.0150	ug/kg
						2,3,4,7,8-PCDF	3.0000		0.0098	ug/kg
						2,3,7,8-TCDF	3.8100		0.0067	ug/kg
						Heptachlorodibenzodioxin	0.4690		0.0280	ug/kg
						HpCDF	7.8100		0.0240	ug/kg
						HxCDF	20.9000		0.0180	ug/kg
						OCDF	6.2300		0.0260	ug/kg
						Octachlorodibenzodioxin	2.4500		0.0380	ug/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1932	IC05SS193202N	0.51	03/31/92	04/29/92	SW8280	PeCDF	19.1000		0.0098	ug/kg
						Tetrachlorodibenzofuran	17.8000		0.0067	ug/kg
IC05S1933	IC05SS193301N	0.50	03/31/92	04/02/92	FPCB	PCB-1260	17.0000		0.2000	mg/kg
	IC05SS193302N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,6,7,8-HpCDD	0.4190		0.0590	ug/kg
						1,2,3,4,6,7,8-HpCDF	0.4040		0.0390	ug/kg
						1,2,3,4,7,8-HxCDF	0.5080		0.0270	ug/kg
						1,2,3,7,8-PCDF	0.1380		0.0240	ug/kg
						2,3,4,6,7,8-HxCDF	0.1200		0.0270	ug/kg
						2,3,4,7,8-PCDF	0.4230		0.0240	ug/kg
						2,3,7,8-TCDF	0.4140		0.0130	ug/kg
						Heptachlorodibenzodioxin	0.4190		0.0590	ug/kg
						Hexachlorodibenzodioxin	0.1350		0.0370	ug/kg
						HpCDF	0.7790		0.0580	ug/kg
						HxCDF	1.3900		0.0330	ug/kg
						OCDF	0.4950		0.0740	ug/kg
						Octachlorodibenzodioxin	4.7500		0.1100	ug/kg
						PeCDF	3.4900		0.0240	ug/kg
						Tetrachlorodibenzofuran	1.3000		0.0130	ug/kg
IC05S1934	IC05SS193401N	0.50	03/31/92	04/02/92	FPCB	PCB-1260	9.9000		0.2000	mg/kg
	IC05SS193402N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,6,7,8-HpCDD	0.1420		0.0140	ug/kg
						1,2,3,4,6,7,8-HpCDF	0.0943		0.0084	ug/kg
						1,2,3,4,7,8-HxCDF	0.1210		0.0058	ug/kg
						1,2,3,6,7,8-HxCDF	0.0282		0.0046	ug/kg
						1,2,3,7,8-PCDF	0.0508		0.0062	ug/kg
						2,3,4,6,7,8-HxCDF	0.0264		0.0058	ug/kg
						2,3,4,7,8-PCDF	0.1120		0.0062	ug/kg
						2,3,7,8-TCDF	0.2050		0.0034	ug/kg
						Heptachlorodibenzodioxin	0.1420		0.0140	ug/kg
						HpCDF	0.2040		0.0120	ug/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1934	IC05SS193402N	0.51	03/31/92	04/22/92	SW8280	HxCDF	0.3680		0.0071	ug/kg
						OCDF	0.1400		0.0120	ug/kg
						Octachlorodibenzodioxin	1.4700		0.0180	ug/kg
						PeCDF	0.8260		0.0062	ug/kg
IC05S1935	IC05SS193501N	0.50	03/31/92	04/02/92	FPCB	Tetrachlorodibenzofuran	0.5100		0.0034	ug/kg
						PCB-1260	4.0000		0.2000	mg/kg
						1,2,3,4,6,7,8-HpCDD	0.0777		0.0320	ug/kg
						1,2,3,4,6,7,8-HpCDF	0.0610		0.0200	ug/kg
IC05S1936	IC05SS193601N	0.51	03/31/92	04/22/92	SW8280	1,2,3,4,7,8-HxCDF	0.0422		0.0130	ug/kg
						2,3,7,8-TCDF	0.0272		0.0084	ug/kg
						Heptachlorodibenzodioxin	0.0777		0.0320	ug/kg
						HpCDF	0.0725		0.0290	ug/kg
						HxCDF	0.1170		0.0170	ug/kg
						OCDF	0.0777		0.0380	ug/kg
						Octachlorodibenzodioxin	1.0400		0.0580	ug/kg
						PeCDF	0.0991		0.0150	ug/kg
						Tetrachlorodibenzofuran	0.0272		0.0084	ug/kg
						PCB-1260	25.0000		0.2000	mg/kg
						1,2,3,4,6,7,8-HpCDD	0.3070		0.0270	ug/kg
						1,2,3,4,6,7,8-HpCDF	0.3520		0.0180	ug/kg
IC05S193602N	IC05SS193602N	0.51	03/31/92	04/21/92	SW8280	1,2,3,4,7,8,9-HpCDF	0.0806		0.0250	ug/kg
						1,2,3,4,7,8-HxCDF	0.3020		0.0130	ug/kg
						1,2,3,6,7,8-HxCDF	0.0568		0.0011	ug/kg
						1,2,3,7,8-PCDF	0.0829		0.0140	ug/kg
						2,3,4,6,7,8-HxCDF	0.1050		0.0130	ug/kg
						2,3,4,7,8-PCDF	0.2340		0.0140	ug/kg
						2,3,7,8-TCDD	0.4680		0.0120	ug/kg
						2,3,7,8-TCDF	0.1690		0.0083	ug/kg
						Heptachlorodibenzodioxin	0.6380		0.0270	ug/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S1936	IC05SS193602N	0.51	03/31/92	04/21/92	SW8280	Hexachlorodibenzodioxin	0.0808		0.0180	ug/kg
						HpCDF	0.8490		0.0250	ug/kg
						HxCDF	1.1100		0.0160	ug/kg
						OCDF	0.3790		0.0250	ug/kg
						Octachlorodibenzodioxin	2.4200		0.0380	ug/kg
						PeCDF	1.4400		0.0140	ug/kg
						TCDD	0.4680		0.0120	ug/kg
						Tetrachlorodibenzofuran	0.6740		0.0083	ug/kg
						PCB-1260	13.0000		0.2000	mg/kg
IC05S1937	IC05SS193701N	0.50	03/31/92	04/02/92	FPCB	1,2,3,4,6,7,8-HpCDD	1.9600		0.0270	ug/kg
						1,2,3,4,6,7,8-HpCDF	0.3630		0.0150	ug/kg
						1,2,3,4,7,8-HxCDF	0.1090		0.0110	ug/kg
						1,2,3,6,7,8-HxCDD	0.0477		0.0170	ug/kg
						1,2,3,6,7,8-HxCDF	0.0285		0.0089	ug/kg
						2,3,4,6,7,8-HxCDF	0.0414		0.0110	ug/kg
						2,3,4,7,8-PCDF	0.0900		0.0120	ug/kg
						2,3,7,8-TCDD	0.0718		0.0110	ug/kg
						2,3,7,8-TCDF	0.1340		0.0074	ug/kg
						Heptachlorodibenzodioxin	3.3800		0.0270	ug/kg
IC05S2201	IC05SS220101N	0.00	11/09/92	12/01/92	SW6010	Hexachlorodibenzodioxin	0.2280		0.0180	ug/kg
						HpCDF	1.1100		0.0210	ug/kg
						HxCDF	0.5880		0.0130	ug/kg
						OCDF	0.6420		0.0160	ug/kg
						Octachlorodibenzodioxin	10.9000		0.0240	ug/kg
						PeCDF	0.4740		0.0120	ug/kg
						TCDD	0.0718		0.0110	ug/kg
						Tetrachlorodibenzofuran	0.3170		0.0074	ug/kg
						Aluminum	8800.0000		3.9000	mg/kg
						Antimony	3.2000	@	3.0000	mg/kg
						Barium	120.0000		0.3500	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2201	IC05SS220101N	0.00	11/09/92	12/01/92	SW6010	Beryllium	0.3400	Q	0.0870	mg/kg
						Cadmium	2.3000		0.3500	mg/kg
						Calcium	1900.0000		87.0000	mg/kg
						Chromium	33.0000		0.6100	mg/kg
						Cobalt	7.5000		0.6100	mg/kg
						Copper	21.0000		0.5200	mg/kg
						Iron	13000.0000		4.3000	mg/kg
						Lead	61.0000		4.3000	mg/kg
						Magnesium	2000.0000		2.6000	mg/kg
						Manganese	420.0000		0.1700	mg/kg
						Molybdenum	0.9000	Q	0.7000	mg/kg
						Nickel	19.0000		1.7000	mg/kg
						Potassium	1200.0000		87.0000	mg/kg
						Selenium	9.8000	Q	6.5000	mg/kg
						Silver	2.6000	Q	0.6100	mg/kg
						Vanadium	38.0000		0.7000	mg/kg
						Zinc	98.0000		0.4300	mg/kg
			11/20/92		SW7060	Arsenic	2.7000		0.3400	mg/kg
			11/25/92		SW7421	Lead	65.0000		5.1000	mg/kg
			11/30/92		SW8080	PCB-1260	4.1000		0.1000	MG/KG
						Total PCB	4.1000		0.1000	MG/KG
			11/19/92		SW9012	Total Cyanide	0.7100	Q	0.2800	mg/kg
IC05S2202	IC05SS220201N	0.00	11/09/92	12/01/92	SW6010	Aluminum	13000.0000		3.8000	mg/kg
						Barium	120.0000		0.3400	mg/kg
						Beryllium	0.3500	Q	0.0850	mg/kg
						Cadmium	6.3000		0.3400	mg/kg
						Calcium	2600.0000		85.0000	mg/kg
						Chromium	47.0000		0.6000	mg/kg
						Cobalt	8.5000		0.6000	mg/kg
						Copper	27.0000		0.5100	mg/kg
						Iron	18000.0000		4.3000	mg/kg
						Lead	73.0000		4.3000	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC0552202	IC055S220201N	0.00	11/09/92	12/01/92	SW6010	Magnesium	2900.0000		2.6000	mg/kg
						Manganese	270.0000		0.1700	mg/kg
						Molybdenum	1.4000	0	0.6800	mg/kg
						Nickel	22.0000		1.7000	mg/kg
						Potassium	1700.0000		85.0000	mg/kg
						Silver	3.3000		0.6000	mg/kg
						Sodium	140.0000	0	85.0000	mg/kg
						Vanadium	50.0000		0.6800	mg/kg
						Zinc	97.0000		0.4300	mg/kg
						Arsenic	3.6000		0.3700	mg/kg
						Lead	160.0000		11.0000	mg/kg
						Mercury	0.1200	0	0.0390	mg/kg
						PCB-1260	32.0000		0.5000	MG/KG
						Total PCB	32.0000		0.5000	MG/KG
						Total Cyanide	0.3800	0	0.2700	mg/kg
IC0552203	IC055S220301N	0.00	11/09/92	12/01/92	SW6010	Aluminum	13000.0000		4.2000	mg/kg
						Barium	360.0000		0.3700	mg/kg
						Beryllium	0.2500	0	0.0930	mg/kg
						Cadmium	31.0000		0.3700	mg/kg
						Calcium	3000.0000		93.0000	mg/kg
						Chromium	360.0000		0.6500	mg/kg
						Cobalt	10.0000		0.6500	mg/kg
						Copper	110.0000		0.5600	mg/kg
						Iron	18000.0000		4.6000	mg/kg
						Lead	840.0000		4.6000	mg/kg
						Magnesium	3400.0000		2.8000	mg/kg
						Manganese	380.0000		0.1900	mg/kg
						Molybdenum	6.1000		0.7400	mg/kg
						Nickel	58.0000		1.9000	mg/kg
						Potassium	1100.0000		93.0000	mg/kg
						Silver	13.0000		0.6500	mg/kg
						Sodium	200.0000	0	93.0000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	LCPT LIMIT	UNITS
IC05S2204	IC05S220401N	0.00	11/09/92	11/24/92	SW7740	Selenium	0.6700	@	0.4400	mg/kg
				11/30/92	SW8080	PCB-1260	8.5000		0.1000	MG/KG
				11/19/92	Total PCB		8.5000		0.1000	MG/KG
					SW9012	Total Cyanide	0.5000	@	0.2600	mg/kg
IC05S2205	IC05S220501N	0.00	11/09/92	12/01/92	SW6010	Aluminum	11000.0000		3.9000	mg/kg
						Antimony	3.2000	@	3.0000	mg/kg
						Barium	290.0000		0.3500	mg/kg
						Beryllium	0.2300	@	0.0870	mg/kg
						Cadmium	24.0000		0.3500	mg/kg
						Calcium	3300.0000		87.0000	mg/kg
						Chromium	380.0000		0.6100	mg/kg
						Cobalt	8.8000		0.6100	mg/kg
						Copper	130.0000		0.5200	mg/kg
						Iron	14000.0000		4.3000	mg/kg
						Lead	910.0000		4.3000	mg/kg
						Magnesium	2600.0000		2.6000	mg/kg
						Manganese	270.0000		0.1700	mg/kg
						Molybdenum	5.2000		0.7000	mg/kg
						Nickel	74.0000		1.7000	mg/kg
						Potassium	1100.0000		87.0000	mg/kg
						Silver	16.0000		0.6100	mg/kg
						Sodium	210.0000	@	87.0000	mg/kg
						Vanadium	35.0000		0.7000	mg/kg
						Zinc	310.0000		0.4300	mg/kg
					SW7060	Arsenic	6.2000		0.7100	mg/kg
					SW7421	Lead	910.0000		54.0000	mg/kg
					SW7470	Mercury	2.5000		0.0400	mg/kg
					SW7740	Selenium	0.7400	@	0.4400	mg/kg
					SW8080	PCB-1260	8.2000		0.1000	MG/KG
					Total PCB		8.2000		0.1000	MG/KG
					SW9012	Total Cyanide	1.3000	@	0.2700	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2206	IC05SS220601N	0.00	11/09/92	12/01/92	SW6010	Aluminum	14000.0000			3.8000 mg/kg
						Antimony	7.8000	0		2.9000 mg/kg
						Barium	220.0000			0.3400 mg/kg
						Beryllium	0.3000	0		0.0840 mg/kg
						Cadmium	33.0000			0.3400 mg/kg
						Calcium	3400.0000			84.0000 mg/kg
						Chromium	480.0000			0.5900 mg/kg
						Cobalt	11.0000			0.5900 mg/kg
						Copper	130.0000			0.5000 mg/kg
						Iron	18000.0000			4.2000 mg/kg
						Lead	1000.0000			4.2000 mg/kg
						Magnesium	3100.0000			2.5000 mg/kg
						Manganese	320.0000			0.1700 mg/kg
						Molybdenum	5.9000			0.6700 mg/kg
						Nickel	77.0000			1.7000 mg/kg
						Potassium	1200.0000			84.0000 mg/kg
						Selenium	7.4000	0		6.3000 mg/kg
						Silver	15.0000			0.5900 mg/kg
						Sodium	210.0000	0		84.0000 mg/kg
						Vanadium	44.0000			0.6700 mg/kg
						Zinc	400.0000			0.4200 mg/kg
						Arsenic	2.7000			0.3500 mg/kg
						Lead	1400.0000			110.0000 mg/kg
						Mercury	2.2000			0.0380 mg/kg
						Selenium	0.6300	0		0.4300 mg/kg
						PCB-1260	18.0000			0.2000 MG/KG
						Total PCB	18.0000			0.2000 MG/KG
						Total Cyanide	1.1000	0		0.2600 mg/kg
IC05S2207	IC05SS220701N	0.00	11/09/92	12/02/92	SW6010	Aluminum	10000.0000			3.8000 mg/kg
						Barium	110.0000			0.3400 mg/kg
						Beryllium	0.2800	0		0.0850 mg/kg
						Cadmium	0.4800	0		0.3400 mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2207	IC05SS220701N	0.00	11/09/92	12/02/92	SW6010	Calcium	2700.0000		85.0000	mg/kg
						Chromium	21.0000		0.6000	mg/kg
						Cobalt	7.1000		0.6000	mg/kg
						Copper	14.0000		0.5100	mg/kg
						Iron	12000.0000		4.3000	mg/kg
						Lead	35.0000		4.3000	mg/kg
						Magnesium	1800.0000		2.6000	mg/kg
						Manganese	280.0000		0.1700	mg/kg
						Nickel	14.0000		1.7000	mg/kg
						Potassium	730.0000		85.0000	mg/kg
						Silver	1.7000	0	0.6000	mg/kg
						Vanadium	35.0000		0.6800	mg/kg
						Zinc	29.0000		0.4300	mg/kg
						Arsenic	2.9000		0.3600	mg/kg
					SW7060	Lead	53.0000		5.3000	mg/kg
					SW7421	Selenium	1.1000	0	0.4400	mg/kg
					SW7740	PCB-1260	4.0000		0.1000	MG/KG
					SW8080	Total PCB	4.0000		0.1000	MG/KG
					SW8280	Octachlorodibenzodioxin	0.4300	0	0.1200	ng/g
					T08280	Octachlorodibenzodioxin	0.4900		0.2800	ng/g
IC05S2208	IC05SS220801N	0.00	11/09/92	12/02/92	SW6010	Aluminum	10000.0000		3.9000	mg/kg
						Barium	110.0000		0.3500	mg/kg
						Beryllium	0.2800	0	0.0880	mg/kg
						Cadmium	1.0000	0	0.3500	mg/kg
						Calcium	2300.0000		88.0000	mg/kg
						Chromium	24.0000		0.6100	mg/kg
						Cobalt	6.3000		0.6100	mg/kg
						Copper	98.0000		0.5300	mg/kg
						Iron	13000.0000		4.4000	mg/kg
						Lead	26.0000		4.4000	mg/kg
						Magnesium	2200.0000		2.6000	mg/kg
						Manganese	250.0000		0.1800	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS -- OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2209	IC05SS220901N	0.00	11/09/92	12/04/92	SW7470	Mercury	0.3800		0.0450	mg/kg
						Selenium	1.4000	0	0.4600	mg/kg
						PCB-1260	46.0000		0.4000	MG/KG
						Total PCB	46.0000		0.0000	MG/KG
						1,2,3,4,6,7,8-HpCDD	1.1000		0.1900	ng/g
						1,2,3,4,6,7,8-HxCDF	0.5500	0	0.1200	ng/g
						1,2,3,4,7,8-HxCDF	0.0790	0	0.0600	ng/g
						2,3,4,7,8-PCDF	0.1400	0	0.0420	ng/g
						UCDF	0.8100		0.1500	ng/g
						Octachlorodibenzodioxin	8.3000		0.2400	ng/g
						Total Cyanide	1.2000	0	0.2600	mg/kg
						Heptachlorodibenzodioxin	2.4000		0.4500	ng/g
						HpCDF	1.2000		0.2800	ng/g
						HxCDF	0.4300		0.1500	ng/g
IC05S2210	IC05SS221001N	0.00	11/09/92	12/02/92	SW6010	Aluminum	8900.0000		3.9000	mg/kg
						Barium	110.0000		0.3400	mg/kg
						Beryllium	0.2400	0	0.0860	mg/kg
						Cadmium	3.6000		0.3400	mg/kg
						Calcium	2000.0000		86.0000	mg/kg
						Chromium	32.0000		0.6000	mg/kg
						Cobalt	6.7000		0.6000	mg/kg
						Copper	22.0000		0.5200	mg/kg
						Iron	14000.0000		4.3000	mg/kg
						Lead	47.0000		4.3000	mg/kg
						Magnesium	2400.0000		2.6000	mg/kg
						Manganese	250.0000		0.1700	mg/kg
						Nickel	18.0000		1.7000	mg/kg
						Potassium	1100.0000		86.0000	mg/kg
						Silver	4.7000		0.6000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2210	IC05SS221001N	0.00	11/09/92	12/02/92	SW6010	Sodium	91.0000	0	86.0000	mg/kg
						Vanadium	38.0000		0.6900	mg/kg
						Zinc	81.0000		0.4300	mg/kg
						Arsenic	3.5000		0.3100	mg/kg
						Lead	51.0000		4.7000	mg/kg
						Mercury	0.0800	0	0.0410	mg/kg
						Selenium	1.3000	0	0.3900	mg/kg
						PCB-1260	25.0000		0.2000	MG/KG
						Total PCB	25.0000		0.0000	MG/KG
						1,2,3,4,6,7,8-HpCDD	0.1600	0	0.1500	ng/g
						OCDF	0.2700	E	0.2300	ng/g
						Octachlorodibenzodioxin	1.4000	0	0.2900	ng/g
						Octachlorodibenzodioxin	1.9000	E	0.7200	ng/g
						Aluminum	9000.0000		3.9000	mg/kg
						Antimony	6.5000	0	3.0000	mg/kg
						Barium	490.0000		0.3400	mg/kg
						Beryllium	0.1800	0	0.0860	mg/kg
IC05S2211	IC05SS221101N	0.00	11/09/92	12/02/92	SW6010	Cadmium	28.0000		0.3400	mg/kg
						Calcium	3000.0000		86.0000	mg/kg
						Chromium	290.0000		0.6000	mg/kg
						Cobalt	8.0000		0.6000	mg/kg
						Copper	140.0000		0.5200	mg/kg
						Iron	17000.0000		4.3000	mg/kg
						Lead	740.0000		4.3000	mg/kg
						Magnesium	2700.0000		2.6000	mg/kg
						Manganese	260.0000		0.1700	mg/kg
						Molybdenum	19.0000		0.6900	mg/kg
						Nickel	55.0000		1.7000	mg/kg
						Potassium	860.0000		86.0000	mg/kg
						Selenium	10.0000	0	6.5000	mg/kg
						Silver	11.0000		0.6000	mg/kg
						Sodium	220.0000	0	86.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2211	IC05SS221101N	0.00	11/09/92	12/02/92	SW6010	Vanadium	32.0000		0.6900	mg/kg
						Zinc	350.0000		0.4300	mg/kg
						Arsenic	3.8000		0.3600	mg/kg
						Lead	1300.0000		110.0000	mg/kg
						Mercury	4.7000		0.0490	mg/kg
						Selenium	1.1000	0	0.4400	mg/kg
						PCB-1260	16.0000		0.2000	MG/KG
						Total PCB	16.0000		0.0000	MG/KG
						1,2,3,4,6,7,8-HpCDD	0.5300	0	0.1300	ng/g
						OCDF	0.4300	0	0.1800	ng/g
						Octachlorodibenzodioxin	4.0000		0.1700	ng/g
						Total Cyanide	1.3000	0	0.2700	mg/kg
						Heptachlorodibenzodioxin	1.6000		0.3100	ng/g
						HpCDF	0.6000		0.1900	ng/g
IC05S2212	IC05SS221201N	0.00	11/09/92	12/02/92	SW6010	Aluminum	15000.0000		3.8000	mg/kg
						Antimony	4.9000	0	3.0000	mg/kg
						Barium	770.0000		0.3400	mg/kg
						Beryllium	0.2900	0	0.0850	mg/kg
						Cadmium	47.0000		0.3400	mg/kg
						Calcium	4100.0000		85.0000	mg/kg
						Chromium	590.0000		0.6000	mg/kg
						Cobalt	12.0000		0.6000	mg/kg
						Copper	180.0000		0.5100	mg/kg
						Iron	20000.0000		4.3000	mg/kg
						Lead	1500.0000		4.3000	mg/kg
						Magnesium	4000.0000		2.6000	mg/kg
						Manganese	410.0000		0.1700	mg/kg
						Molybdenum	12.0000		0.6800	mg/kg
						Nickel	92.0000		1.7000	mg/kg
						Potassium	1400.0000		85.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2212	IC05SS221201N	0.00	11/09/92	12/02/92	SW6010	Silver	20.0000		0.6000	mg/kg
						Sodium	250.0000	@	85.0000	mg/kg
						Vanadium	45.0000		0.6800	mg/kg
						Zinc	690.0000		0.4300	mg/kg
						Arsenic	6.0000		0.6500	mg/kg
						Lead	1500.0000		97.0000	mg/kg
						Mercury	2.6000		0.0450	mg/kg
						Selenium	1.3000	@	0.4100	mg/kg
						PCB-1260	9.0000		0.1000	MG/KG
						Total PCB	9.0000		0.0000	MG/KG
						1,2,3,4,6,7,8-HpCDD	0.6900	@	0.1400	ng/g
						1,2,3,4,6,7,8-HpCDF	0.5900		0.1000	ng/g
						OCDF	0.8200		0.1400	ng/g
						Octachlorodibenzodioxin	7.1000		0.1900	ng/g
						Total Cyanide	2.1000		0.2600	mg/kg
						Heptachlorodibenzodioxin	1.3000		0.2700	ng/g
IC05S2213	IC05SS221301N	0.00	11/10/92	12/03/92	8015E	HpCDF	0.8000		0.1900	ng/g
						OCDF	0.6500		0.2500	ng/g
						Octachlorodibenzodioxin	7.6000		0.3500	ng/g
						Total Petroleum Hydrocarb	14.0000		10.0000	MG/KG
						ons (by extraction)	10000.0000		3.5000	mg/kg
						Aluminum	4.5000	@	2.7000	mg/kg
						Antimony	70.0000		0.3100	mg/kg
						Barium	0.1900	@	0.0780	mg/kg
						Beryllium	0.9800	@	0.3100	mg/kg
						Cadmium	3500.0000		78.0000	mg/kg
						Calcium	37.0000		0.5500	mg/kg
						Chromium	7.2000		0.5500	mg/kg
						Cobalt	26.0000		0.4700	mg/kg
						Copper	16000.0000		3.9000	mg/kg
						Iron	30.0000		3.9000	mg/kg
						Lead				

## MCCLELLAN OUB R1 SOIL RESULTS - OU R1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2213	IC05SS221301N	0.00	11/10/92	12/02/92	SW6010	Magnesium	4100.0000		2.3000	mg/kg
						Manganese	220.0000		0.1600	mg/kg
						Molybdenum	0.7900	Q	0.6200	mg/kg
						Nickel	31.0000		1.6000	mg/kg
						Potassium	970.0000		78.0000	mg/kg
						Selenium	8.9000	Q	5.9000	mg/kg
						Silver	1.7000	Q	0.5500	mg/kg
						Sodium	300.0000	Q	78.0000	mg/kg
						Vanadium	36.0000		0.6200	mg/kg
						Zinc	44.0000		0.3900	mg/kg
			11/25/92		SW7060	Arsenic	6.5000		0.6300	mg/kg
			11/30/92		SW7421	Lead	42.0000		4.7000	mg/kg
					SW7740	Selenium	1.6000	Q	0.3900	mg/kg
			11/25/92		SW8270	Bis(2-ethylhexyl)phthalat e	1.0000	Q	0.3400	ug/g
IC05S2214	IC05SS221401N	0.00	11/11/92	12/03/92	8015E	Total Petroleum Hydrocarb ons (by extraction)	24.0000		10.0000	MG/KG
			12/02/92		SW6010	Aluminum	12000.0000	Q	3.5000	mg/kg
						Antimony	5.0000		2.7000	mg/kg
						Barium	71.0000		0.3100	mg/kg
						Beryllium	0.2100	Q	0.0770	mg/kg
						Cadmium	4.3000		0.3100	mg/kg
						Calcium	3400.0000		77.0000	mg/kg
						Chromium	95.0000		0.5400	mg/kg
						Cobalt	10.0000		0.5400	mg/kg
						Copper	40.0000		0.4600	mg/kg
						Iron	27000.0000		3.8000	mg/kg
						Lead	380.0000		3.8000	mg/kg
						Magnesium	5300.0000		2.3000	mg/kg
						Manganese	300.0000		0.1500	mg/kg
						Molybdenum	1.8000	Q	0.6200	mg/kg
						Nickel	42.0000		1.5000	mg/kg



## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2214	IC05SS221401N	0.00	11/11/92	12/02/92	SW6010	Potassium	1200.0000		77.0000	mg/kg
						Selenium	7.3000	0	5.8000	mg/kg
						Silver	3.5000		0.5400	mg/kg
						Sodium	310.0000	0	77.0000	mg/kg
						Vanadium	44.0000		0.6200	mg/kg
						Zinc	180.0000		0.3800	mg/kg
						Arsenic	4.7000		0.3000	mg/kg
						Lead	240.0000		23.0000	mg/kg
						Mercury	0.0710	0	0.0370	mg/kg
						Selenium	1.6000	0	0.3800	mg/kg
						Bis(2-ethylhexyl)phthalate	1.7000		0.3400	ug/g
IC05S2215	IC05SS221501N	0.00	11/11/92	12/03/92	8015E	Total Petroleum Hydrocarbons (by extraction)	39.0000		10.0000	MG/KG
					SW6010	Aluminum	15000.0000		4.4000	mg/kg
						Barium	87.0000		0.3900	mg/kg
						Beryllium	0.2600	0	0.0970	mg/kg
						Cadmium	4.7000		0.3900	mg/kg
						Calcium	4000.0000		97.0000	mg/kg
						Chromium	84.0000		0.6800	mg/kg
						Cobalt	12.0000		0.6800	mg/kg
						Copper	43.0000		0.5800	mg/kg
						Iron	29000.0000		4.9000	mg/kg
						Lead	250.0000		4.9000	mg/kg
						Magnesium	6700.0000		2.9000	mg/kg
						Manganese	350.0000		0.1900	mg/kg
						Molybdenum	1.6000	0	0.7800	mg/kg
						Nickel	47.0000		1.9000	mg/kg
						Potassium	1700.0000		97.0000	mg/kg
						Selenium	12.0000	0	7.3000	mg/kg
						Silver	2.9000	0	0.6800	mg/kg
						Sodium	340.0000	0	97.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2215	IC05SS221501N	0.00	11/11/92	12/03/92	SW6010	Vanadium	55.0000		0.7800	mg/kg
						Zinc	190.0000		0.4900	mg/kg
						Arsenic	9.8000		1.5000	mg/kg
						Lead	300.0000		23.0000	mg/kg
						Selenium	2.5000		0.4800	mg/kg
						Bis(2-ethylhexyl)phthalat e	1.4000	0	0.3400	ug/g
IC05S2216	IC05SS221601N	0.00	11/11/92	12/03/92	SW9012	Total Cyanide	0.2900	0	0.2600	mg/kg
						Total Petroleum Hydrocarb ons (by extraction)	28.0000		10.0000	MG/KG
						Aluminum	11000.0000		3.4000	mg/kg
						Barium	63.0000		0.3000	mg/kg
						Beryllium	0.1700	0	0.0760	mg/kg
						Cadmium	1.8000		0.3000	mg/kg
						Calcium	2800.0000		76.0000	mg/kg
						Chromium	61.0000		0.5300	mg/kg
						Cobalt	9.1000		0.5300	mg/kg
						Copper	51.0000		0.4500	mg/kg
						Iron	20000.0000		3.8000	mg/kg
						Lead	200.0000		3.8000	mg/kg
						Magnesium	5200.0000		2.3000	mg/kg
						Manganese	260.0000		0.1500	mg/kg
						Molybdenum	1.7000	0	0.6100	mg/kg
						Nickel	42.0000		1.5000	mg/kg
						Potassium	1300.0000		76.0000	mg/kg
						Selenium	13.0000	0	5.7000	mg/kg
						Silver	2.6000	0	0.5300	mg/kg
						Sodium	250.0000	0	76.0000	mg/kg
						Vanadium	41.0000		0.6100	mg/kg
						Zinc	110.0000		0.3800	mg/kg
						Arsenic	5.2000		0.3200	mg/kg
						Lead	270.0000		24.0000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (F)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2216	IC05SS221601N	0.00	11/11/92	11/30/92	SW7740	Selenium	1.7000	Q	0.4000	mg/kg
				11/25/92	SW8270	Bis(2-ethylhexyl)phthalat	2.0000		0.3400	ug/g
IC05S2217	IC05SS221701N	0.00	11/11/92	12/03/92	8015F	Total Petroleum Hydrocarb ons (by extraction)	38.0000		10.0000	MG/KG
					SW6010	Aluminum	49000.0000		13.0000	mg/kg
						Antimony	40.0000	Z	10.0000	mg/kg
						Barium	300.0000		1.2000	mg/kg
						Beryllium	0.7900	Q	0.2500	mg/kg
						Cadmium	24.0000		1.2000	mg/kg
						Calcium	13000.0000		290.0000	mg/kg
						Chromium	330.0000		2.1000	mg/kg
						Cobalt	41.0000		2.1000	mg/kg
						Copper	160.0000		1.8000	mg/kg
						Iron	90000.0000		15.0000	mg/kg
						Lead	1300.0000		15.0000	mg/kg
						Magnesium	23000.0000		8.8000	mg/kg
						Manganese	1000.0000		0.5900	mg/kg
						Molybdenum	8.1000	Q	2.4000	mg/kg
						Nickel	160.0000		5.9000	mg/kg
						Potassium	5800.0000		290.0000	mg/kg
						Selenium	52.0000	Q	22.0000	mg/kg
						Silver	11.0000		2.1000	mg/kg
						Sodium	1300.0000	Q	290.0000	mg/kg
						Thallium	34.0000	Q	15.0000	mg/kg
						Vanadium	180.0000		2.4000	mg/kg
						Zinc	1100.0000		1.5000	mg/kg
				12/02/92	SW7060	Arsenic	23.0000		2.4000	mg/kg
				12/01/92	SW7421	Lead	2200.0000		180.0000	mg/kg
				11/30/92	SW7740	Selenium	6.7000	Q	1.5000	mg/kg
					SW8270	Bis(2-ethylhexyl)phthalat	1.4000	Q	0.3500	ug/g

## MCCLELLAN DUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2218	IC05S221801N	0.00	11/11/92	12/03/92	8015E	Total Petroleum Hydrocarbons (by extraction)	79.0000		10.0000	MG/KG
			12/02/92		SW6010	Aluminum	10000.0000			
						Antimony	6.1000	0		3.7000 mg/kg
						Barium	130.0000			2.9000 mg/kg
						Beryllium	0.2000	0		0.3300 mg/kg
						Cadmium	12.0000			0.0830 mg/kg
						Calcium	2800.0000			0.3300 mg/kg
						Chromium	120.0000			83.0000 mg/kg
						Cobalt	11.0000			0.5800 mg/kg
						Copper	63.0000			0.5800 mg/kg
						Iron	39000.0000			0.5000 mg/kg
						Lead	620.0000			4.1000 mg/kg
						Magnesium	4500.0000			4.1000 mg/kg
						Manganese	350.0000			2.5000 mg/kg
						Molybdenum	2.6000	0		0.1700 mg/kg
						Nickel	40.0000			0.6600 mg/kg
						Potassium	920.0000			1.7000 mg/kg
						Selenium	18.0000	0		83.0000 mg/kg
						Silver	4.6000			6.2000 mg/kg
						Sodium	220.0000	0		0.5800 mg/kg
						Thallium	7.5000	0		83.0000 mg/kg
						Vanadium	34.0000			4.2000 mg/kg
						Zinc	240.0000			0.6600 mg/kg
			11/25/92		SW7060	Arsenic	7.5000			0.4100 mg/kg
			11/30/92		SW7421	Lead	700.0000			0.6700 mg/kg
			12/04/92		SW7470	Mercury	1.1000			50.0000 mg/kg
			11/30/92		SW7740	Selenium	1.7000	0		0.0420 mg/kg
			11/25/92		SW8270	Bis(2-ethylhexyl)phthalate	0.7800	0		0.4200 mg/kg
										0.3400 ug/g
			12/07/92		SW8280	1,2,3,4,6,7,8-HpCDD	0.4600	0		0.1100 ng/g
						1,2,3,4,7,8-HxCDF	0.1400	0		0.0580 ng/g
						2,3,4,7,8-PCDF	0.1100	0		0.0450 ng/g

## MCCLELLAN OUB R1 SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC0552218	IC055221801N	0.00	11/11/92	12/07/92	SW8280	2,3,7,8-TCDF	0.0480	0	0.0450	ng/g
						OCDF	0.4200	0	0.1200	ng/g
						Octachlorodibenzodioxin	3.5000	E	0.1800	ng/g
						Total Cyanide	0.3000	0	0.2600	mg/kg
				11/24/92	SW9012	Heptachlorodibenzodioxin	0.8400		0.2300	ng/g
				12/07/92	T08280	HpCDF	0.5000		0.1400	ng/g
						HxCDF	0.5100		0.1000	ng/g
						OCDF	0.4000		0.2300	ng/g
						Octachlorodibenzodioxin	3.6000	E	0.3600	ng/g
						PeCDF	0.9000		0.0800	ng/g
IC0552219	IC055221901N	0.00	11/11/92	12/03/92	8015E	total Petroleum Hydrocarb	28.0000		10.0000	µg/Kg
						ons (by extraction)				
						Aluminum	9400.0000		3.7000	mg/kg
						Antimony	7.0000	0	2.8000	mg/kg
						Barium	78.0000		0.3300	mg/kg
						Beryllium	0.1700	0	0.0810	mg/kg
						Cadmium	4.7000		0.3300	mg/kg
						Calcium	2400.0000		81.0000	mg/kg
						Chromium	93.0000		0.5700	mg/kg
						Cobalt	8.3000		0.5700	mg/kg
						Copper	49.0000		0.4900	mg/kg
						Iron	24000.0000		4.1000	mg/kg
						Lead	480.0000		4.1000	mg/kg
						Magnesium	4500.0000		2.4000	mg/kg
						Manganese	240.0000		0.1600	mg/kg
						Molybdenum	2.6000	0	0.6500	mg/kg
						Nickel	36.0000		1.6000	mg/kg
						Potassium	1200.0000		81.0000	mg/kg
						Selenium	8.1000	0	5.1000	mg/kg
						Silver	3.1000		0.5700	mg/kg
						Sodium	200.0000	0	81.0000	mg/kg
						Vanadium	35.0000		0.6500	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU 81

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2219	IC05SS221901N	0.00	11/11/92	12/02/92	SW6010	Zinc	200.0000		0.4100	mg/kg
					SW7060	Arsenic	6.7000		0.6500	mg/kg
					SW7421	Lead	600.0000		49.0000	mg/kg
					SW7470	Mercury	0.0930	0	0.0420	mg/kg
					SW7740	Selenium	2.0000	0	0.4200	mg/kg
					SW8270	Bis(2-ethylhexyl)phthalate	1.8000		0.3400	ug/g
						Dimethyl Phthalate	1.2000	0	0.3400	ug/g
					SW8280	1,2,3,4,6,7,8-HpCDD	0.2200	0	0.0570	ng/g
						OCDF	0.1100	0	0.0630	ng/g
						Octachlorodibenzodioxin	2.2000		0.0950	ng/g
IC05S2220	IC05SS222001N	0.00	11/11/92	12/03/92	8015E	Total Petroleum Hydrocarbons (by extraction)	40.0000		10.0000	MG/KG
					SW6010	Aluminum	13000.0000		4.0000	mg/kg
						Antimony	15.0000	Z0	3.1000	mg/kg
						Barium	74.0000		0.3500	mg/kg
						Beryllium	0.2100	0	0.0880	mg/kg
						Cadmium	4.8000		0.3500	mg/kg
						Calcium	4200.0000		88.0000	mg/kg
						Chromium	72.0000		0.6200	mg/kg
						Cobalt	10.0000		0.6200	mg/kg
						Copper	45.0000		0.5300	mg/kg
						Iron	25000.0000		4.4000	mg/kg
						Lead	220.0000		4.4000	mg/kg
						Magnesium	5600.0000		2.7000	mg/kg
						Manganese	280.0000		0.1800	mg/kg
						Molybdenum	2.3000	0	0.7100	mg/kg
						Nickel	44.0000		1.8000	mg/kg
						Potassium	1600.0000		88.0000	mg/kg
						Selenium	11.0000	0	6.6000	mg/kg

## MCCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05S2220	IC05SS222001N	0.00	11/11/92	12/03/92	SW6010	Silver	3.0000	0	0.6200	mg/kg
						Sodium	430.0000	0	88.0000	mg/kg
						Vanadium	47.0000		0.7100	mg/kg
						Zinc	150.0000		0.4400	mg/kg
						Arsenic	5.6000		0.3500	mg/kg
						Lead	310.0000		21.0000	mg/kg
						Selenium	1.9000	0	0.4400	mg/kg
						Bis(2-ethylhexyl)phthalat	1.2000	0	0.3400	ug/g
						e				
						Octachlorodibenzodioxin	0.8500	0	0.2100	ng/g
						Total Cyanide	0.3700	0	0.2500	mg/kg
						Octachlorodibenzodioxin	0.9000		0.3900	ng/g
IC05S2221	IC05SS222101N	0.00	11/11/92	12/03/92	8015E	Total Petroleum Hydrocarb	24.0000		10.0000	MG/KG
						ons (by extraction)				
						Aluminum	9100.0000		3.5000	mg/kg
						Antimony	4.6000	0	2.7000	mg/kg
						Barium	67.0000		0.3100	mg/kg
						Beryllium	0.1800	0	0.0770	mg/kg
						Cadmium	5.7000		0.3100	mg/kg
						Calcium	2300.0000		77.0000	mg/kg
						Chromium	59.0000		0.5400	mg/kg
						Cobalt	3.9000		0.5400	mg/kg
						Copper	29.0000		0.4600	mg/kg
						Iron	22000.0000		3.8000	mg/kg
						Lead	240.0000		3.8000	mg/kg
						Magnesium	5200.0000		2.3000	mg/kg
						Manganese	310.0000		0.1500	mg/kg
						Molybdenum	1.2000	0	0.6200	mg/kg
						Nickel	34.0000		1.5000	mg/kg
						Potassium	1100.0000		77.0000	mg/kg
						Selenium	12.0000	0	5.8000	mg/kg
						Silver	2.6000	0	0.5400	mg/kg

## MCLELLAN OUB RI SOIL RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
10552221	1C05S222101N	0.00	11/11/92	12/02/92	SW6010	Sodium	170.0000	Ø	77.0000	mg/kg
						Vanadium	34.0000		0.6200	mg/kg
						Zinc	160.0000		0.3800	mg/kg
			11/25/92		SW7060	Arsenic	7.4000		0.6600	mg/kg
			11/30/92		SW7421	Lead	470.0000		24.0000	mg/kg
			12/04/92		SW7470	Mercury	0.0500	Ø	0.0410	mg/kg
			11/30/92		SW7740	Selenium	1.6000	Ø	0.4100	mg/kg
			11/25/92		SW8270	Bis(2-ethylhexyl)phthalat e	2.6000		0.3500	ug/g
			12/07/92		SW8280	1,2,3,4,6,7,8-HpCDD	0.1800	Ø	0.1000	ng/g
						OCDF	0.1600	Ø	0.1100	ng/g
						Octachlorodibenzodioxin	1.5000		0.1500	ng/g
					T08280	Heptachlorodibenzodioxin	0.3400		0.2200	ng/g
						Octachlorodibenzodioxin	1.3000		0.2800	ng/g



# Qualified Flags

E = Estimated concentration  
S = Screening method

## Data Flags

A = Detected at less than 5 times the reporting limit.  
B = Found in associated blank; sample results not corrected for amount in blank.  
C = This analysis confirmed on a second column or by GC/MS.  
G = Estimated value due to possible GC interference and/or coelution.  
J = Estimated value.  
Q = Quality control standard outside method or laboratory specified control limits.  
X = For SW8270 results, total concentration for both isomers.  
Z = Found in associated blank; sample results not corrected for amount in blank.

## MCCLELLAN OUB RI SOIL GAS RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC0580047	IC05FD004702N	20.00	11/16/92	11/16/92	SGVO	Carbon Tetrachloride	5.00	S,E	5.00	ppbv
						Freon 113	59.00	S,E	5.00	ppbv
						Trichloroethene	17.00	S,E	2.50	ppbv
IC0580048	IC05FD004703N	40.00	11/16/92	11/16/92	SGVO	Tetrachloroethene	14.00	S,E	5.00	ppbv
						Trichloroethene	31.00	S,E	5.00	ppbv
						Freon 113	25.00	S	10.00	ppbv
IC0580049	IC05FD004801N	20.00	11/13/92	11/13/92	SGVO	Freon 113	30.00	S,E	10.00	ppbv
						Tetrachloroethene	27.00	S,E	5.00	ppbv
						Toluene	13.00	S,E	10.00	ppbv
						Trichloroethene	16.00	S,E	5.00	ppbv
						p-Xylene	20.00	S,E	10.00	ppbv
IC0580050	IC05FD004802N	40.00	11/13/92	11/13/92	SGVO	Tetrachloroethene	12.00	S,E	5.00	ppbv
						Toluene	14.00	S,E	10.00	ppbv
						Trichloroethene	9.10	S,E	5.00	ppbv
						o-Xylene	19.00	S,E	10.00	ppbv
						p-Xylene	19.00	S,E	10.00	ppbv
IC0580050	IC05FD004902N	20.00	11/12/92	11/12/92	SGVO	Tetrachloroethene	69.00	S	5.00	ppbv
						Trichloroethene	15.00	S,E	5.00	ppbv
						Freon 113	40.00	S	10.00	ppbv
IC0580050	IC05FD005001N	21.00	11/11/92	11/11/92	SGVO	Trichloroethene	15.00	S	5.00	ppbv
						Freon 113	110.00	S,E	100.00	ppbv
						Trichloroethene	110.00	S	20.00	ppbv
IC0580020	IC05FD002001N	21.00	01/17/92	01/17/92	FPCD	1,1-Dichloroethene	220.00	J	100.00	ppbv
						Freon 113	110.00	S	20.00	ppbv
						Trichloroethene	110.00	S	20.00	ppbv
IC0580021	IC05FD002101N	21.00	02/21/92	02/21/92	FPCD	Tetrachloroethene	30000.00	S	16000.00	ppbv
						Trichloroethene	72000.00	S	16000.00	ppbv

## MCCLELLAN OUB RI SOIL GAS RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC058021	IC05FD002101N	21.00	02/21/92	02/21/92	FEC0	Unknown	6200.00	J	S,E	83000.00 ppbv
							1400.00	J	S,E	83000.00 ppbv
						1,1-Dichloroethene	50.00	G	S,E	100.00 ppbv
						Benzene	36.00	@	S,E	20.00 ppbv
						cis-1,2-Dichloroethene	17000.00	E	S,E	20.00 ppbv
IC058022	IC05FD002202N	21.50	11/01/91	11/01/91	FEC0	trans-1,2-Dichloroethene	22.00		S	20.00 ppbv
						Freon 113	470.00	J	S,E	250.00 ppbv
						Trichloroethene	210.00		S	50.00 ppbv
						1,1-Dichloroethene	4700.00	J	S,E	50.00 ppbv
						cis-1,2-Dichloroethene	22.00		S	10.00 ppbv
IC058031	IC05FD002203N	41.00	11/01/91	11/01/91	FPID	Unknown	100.00	J	S,E	50.00 ppbv
						Freon 113	990.00	J	S,E	1300.00 ppbv
						Trichloroethene	1900.00		S	260.00 ppbv
						1,1-Dichloroethene	9100.00	J	S,E	50.00 ppbv
						cis-1,2-Dichloroethene	630.00	E	S,E	10.00 ppbv
IC058031	IC05CD003101N	21.00	04/01/92	04/08/92	T0-14	1,2,4-Trichlorobenzene	5.70			4.00 ppbv
						1,2,4-Trimethylbenzene	53.00			4.00 ppbv
						1,2-Dichlorobenzene	570.00	E	E	4.00 ppbv
						1,3,5-Trimethylbenzene	17.00			4.00 ppbv
						1,3-Dichlorobenzene	11.00			4.00 ppbv
						1,4-Dichlorobenzene	85.00			4.00 ppbv
						Acetone	38.00			4.00 ppbv
						Cyclohexane	20.00			4.00 ppbv
						Ethylbenzene	12.00			4.00 ppbv
						Freon 113	25.00			4.00 ppbv
						Tetrachloroethene	27.00			4.00 ppbv
						Toluene	51.00			4.00 ppbv
						Trichloroethene	340.00			4.00 ppbv
						cis-1,2-Dichloroethene	41.00			4.00 ppbv

## MCCLELLAN OUB RI SOIL GAS RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	QUAL FLAG	REPT LIMIT	UNITS
IC05B031	IC05CD0003101N	21.00	04/01/92	04/08/92	T0-14	m,p-Xylene n-Octane o-Xylene	47.00 35.00 20.00		4.00 4.00 4.00	ppbv ppbv ppbv
IC05B032	IC05FD0003201N	21.00	04/01/92	04/01/92	FECD	Freon 113	23.00	S,E	50.00	ppbv
IC05B033	IC05CD0003301N	21.00	04/02/92	04/08/92	T0-14	1,3-Dichlorobenzene Acetone	3.20 9.30		2.00 2.00	ppbv ppbv
IC05B035	IC05FD0003501N	7.00	04/02/92	04/02/92	FPID	cis-1,2-Dichloroethene	17.00	S	10.00	ppbv
IC05B036	IC05FD0003601N	5.00	04/02/92	04/02/92	FPID	Toluene m,p-Xylene	48.00 26.00	S S	10.00 20.00	ppbv ppbv
IC05B042	IC05FD0004201N	21.00	07/07/92	07/07/92	SGVO	Freon 113 Trichloroethene	39.00 @ 40.00 @	S,E S,E	10.00 10.00	ppbv ppbv

## MCCLELLAN OUB RI SEDIMENT SAMPLING - POSITIVE RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	UNCERT	QUAL FLAG	REPT LIMIT	UNITS
1C05M0267	1C05SH026701N	0.50	04/16/93	04/22/93	SW8080	PCB-1260	2.8000			0.3000	MG/KG
	1C05SH026702N	0.50	04/16/93	04/27/93	SW6010	Aluminum	19000.0000			4.3000	mg/kg
						Barium	150.0000			0.3800	mg/kg
						Beryllium	0.4000	a		0.0960	mg/kg
						Cadmium	2.4000			0.3800	mg/kg
						Calcium	2800.0000			96.0000	mg/kg
						Chromium	34.0000			0.6700	mg/kg
						Cobalt	9.2000			0.6700	mg/kg
						Copper	21.0000			0.5800	mg/kg
						Iron	19000.0000			4.8000	mg/kg
						Lead	45.0000			4.8000	mg/kg
						Magnesium	3100.0000			2.9000	mg/kg
						Manganese	330.0000			0.1900	mg/kg
						Nickel	22.0000			1.9000	mg/kg
						Potassium	910.0000			96.0000	mg/kg
						Sodium	130.0000	a		96.0000	mg/kg
						Vanadium	54.0000			0.7700	mg/kg
						Zinc	99.0000			0.4800	mg/kg
			05/03/93		SW7060	Arsenic	3.6000	sa	E	0.7800	mg/kg
			05/05/93		SW7130	Cadmium	2.8000	S		0.3900	mg/kg
			05/04/93		SW7421	Lead	29.0000	S		5.8000	mg/kg
			04/27/93		SW7740	Selenium	0.4900	sa	E	0.4900	mg/kg
1C05M0268	1C05SH026801N	0.50	04/16/93	04/22/93	SW8080	PCB-1260	5.4000			0.4000	MG/KG
				05/01/93	SW8280	1,2,3,4,6,7,8-HpCDD	0.3200	Z		0.0000	NG/G
						1,2,3,4,6,7,8-HpCDF	0.1300	Z		0.0000	NG/G
						Heptachlorodibenzodioxin	0.5700			0.0000	NG/G
						HpCDF	0.2500	Z		0.0000	MG/G
						HxCDF	0.2500	Z		0.0000	NG/G
						OCDF	0.3200	Z		0.0000	NG/G
						Octachlorodibenzodioxin	1.8000			0.0000	NG/G
						PeCDF	0.3800			0.0000	NG/G

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MCLELLAN OUB RI SEDIMENT SAMPLING - POSITIVE RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	UNCERT	QUAL FLAG	REPT LIK1T	UNITS
1C05H0268	1C05SH026802N	0.50	04/16/93	04/27/93	SW6010	Aluminum	16000.0000			4.4000	mg/kg
						Barium	120.0000			0.3900	mg/kg
						Beryllium	0.4300	a		0.0970	mg/kg
						Cadmium	4.0000			0.3900	mg/kg
						Calcium	2500.0000			97.0000	mg/kg
						Chromium	37.0000			0.6800	mg/kg
						Cobalt	8.4000			0.6800	mg/kg
						Copper	22.0000			0.5800	mg/kg
						Iron	17000.0000			4.8000	mg/kg
						Lead	180.0000			4.8000	mg/kg
						Magnesium	2500.0000			2.9000	mg/kg
						Manganese	290.0000			0.1900	mg/kg
						Nickel	21.0000			1.9000	mg/kg
						Potassium	870.0000			97.0000	mg/kg
						Sodium	120.0000	a		57.0000	mg/kg
						Vanadium	48.0000			0.7800	mg/kg
						Zinc	130.0000			0.4800	mg/kg
						Arsenic	3.3000	SA	E	0.8000	mg/kg
						Cadmium	4.1000	SA		1.0000	mg/kg
SS03H0026	SS03SH002601N	0.50	04/16/93	04/29/93	E310.1	Bicarbonate	54.0000			5.0000	mg/kg
						pH	7.5000			0.0000	pH units
						Gross Alpha	5.2000	3.80	E	0.0000	PCI/G
						Gross Beta	24.0000	4.80	E	0.0000	PCI/G
						Total organic carbon	1000.0000			950.0000	MG/KG
						Potassium 40	19.9000	2.20		0.0000	PCI/G
						Thorium 232	1.0400	0.44		0.0000	PCI/G
						Aluminum	6200.0000			3.9000	mg/kg
						Barium	51.0000			0.3500	mg/kg
						Beryllium	0.1400	a		0.0870	mg/kg
SS03SH002602N	SS03SH002602N	0.50	04/16/93	04/27/93	E901.1	Potassium 40	19.9000	2.20		0.0000	PCI/G
						Thorium 232	1.0400	0.44		0.0000	PCI/G

## MCLELLAN OUB R1 SEDIMENT SAMPLING - POSITIVE RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	UNCERT	QUAL FLAG	REPT LIMIT	UNITS
SS03H0026	SS03SH002602N	0.50	04/16/93	04/27/93	SW6010	Calcium	1400.0000			87.0000	mg/kg
						Chromium	17.0000			0.6100	mg/kg
						Cobalt	6.6000			0.6100	mg/kg
						Copper	8.3000			0.5200	mg/kg
						Iron	9900.0000			4.4000	mg/kg
						Lead	9.5000	a		4.4000	mg/kg
						Magnesium	1500.0000			2.6000	mg/kg
						Manganese	100.0000			0.1700	mg/kg
						Nickel	11.0000			1.7000	mg/kg
						Potassium	500.0000			87.0000	mg/kg
						Vanadium	28.0000			0.7000	mg/kg
						Zinc	33.0000			0.4400	mg/kg
						Arsenic	2.2000	S	E	0.3500	mg/kg
						Cadmium	0.1300	SA		0.0870	mg/kg
						Lead	3.9000	S		0.5200	mg/kg
SS03H0027	SS03SH002701N	0.50	04/16/93	04/29/93	E310.1	Bicarbonate	56.0000			5.0000	mg/kg
						pH	7.8000			0.0000	pH units
						Gross Alpha	2.9000		3.20	0.0000	PCI/G
						Gross Beta	27.0000		4.60	0.0000	PCI/G
						Total organic carbon	2100.0000			480.0000	MG/KG
						Potassium 40	16.2000		2.00	0.0000	PCI/G
						Aluminum	8800.0000			3.9000	mg/kg
						Barium	87.0000			0.3400	mg/kg
						Beryllium	0.1800	a		0.0860	mg/kg
						Calcium	1700.0000			86.0000	mg/kg
						Chromium	22.0000			0.6000	mg/kg
						Cobalt	7.8000			0.6000	mg/kg
						Copper	11.0000			0.5100	mg/kg
						Iron	12000.0000			4.3000	mg/kg
						Lead	6.7000	a		4.3000	mg/kg
						Magnesium	2400.0000			2.6000	mg/kg
SS03SH002702N	SS03SH002702N	0.50	04/16/93	04/27/93	SW6010	Aluminum	8800.0000			3.9000	mg/kg
						Barium	87.0000			0.3400	mg/kg

## MCCLELLAN OUB RI SEDIMENT SAMPLING - POSITIVE RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	UNCERT	QUAL FLAG	REPT LIMIT	UNITS
SS03H0027	SS03SH002702N	0.50	04/16/93	04/27/93	SW6010	Manganese	140.0000			0.1700	mg/kg
						Nickel	20.0000			1.7000	mg/kg
						Potassium	480.0000			86.0000	mg/kg
						Sodium	89.0000	a		86.0000	mg/kg
						Vanadium	31.0000			0.6900	mg/kg
						Zinc	27.0000			0.4300	mg/kg
						Arsenic	1.5000	SA	E	0.3500	mg/kg
						Lead	3.4000	S		0.5200	mg/kg
SS03H0028	SS03SH002801N	0.50	04/16/93	04/29/93	E310.1	Bicarbonate	43.0000			5.0000	mg/kg
						pH	7.8000			0.0800	pH units
						Gross Alpha	4.1000		3.50	0.0000	PCI/G
						Gross Beta	15.0000		4.10	0.0000	PCI/G
						Total organic carbon	2800.0000			490.0000	MG/KG
SS03SH002802N	SS03SH002802N	0.50	04/16/93	04/28/93	SW6010	Potassium 40	16.2000		1.40	0.0000	PCI/G
						Aluminum	3800.0000			4.2000	mg/kg
						Barium	65.0000			0.3700	mg/kg
						Beryllium	0.1200	a		0.0930	mg/kg
						Cadmium	0.9900	a		0.3700	mg/kg
						Calcium	1200.0000			93.0000	mg/kg
						Chromium	24.0000			0.6500	mg/kg
						Cobalt	7.4000			0.6500	mg/kg
						Copper	7.4000			0.5600	mg/kg
						Iron	8000.0000			4.7000	mg/kg
						Lead	20.0000	a		4.7000	mg/kg
						Magnesium	1300.0000			2.8000	mg/kg
						Manganese	240.0000			0.1900	mg/kg
						Nickel	11.0000			1.9000	mg/kg
						Potassium	360.0000	a		93.0000	mg/kg
						Sodium	94.0000	a		93.0000	mg/kg
						Vanadium	24.0000			0.7500	mg/kg
						Zinc	47.0000			0.4700	mg/kg



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MCCLELLAN OUB RI SEDIMENT SAMPLING - POSITIVE RESULTS - OU B1

BORING	FIELD SAMPLE ID	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	METHOD	ANALYTE	RESULT	UNCERT	QUAL FLAG	REPT LIMIT	UNITS
SS03M0028	SS03SH002802N	0.50	04/16/93	05/03/93	SH7060	Arsenic	1.9000	S	E	0.3800	mg/kg
				05/05/93	SH7130	Cadmium	3.6000	SA		0.9500	mg/kg
				05/04/93	SH7421	Lead	11.0000	SA		2.8000	mg/kg

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• SURFACE

• SURFACE



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**LEGEND:**

— OU B1 BOUNDARY

• SURFACE SCRAPE LOCATION

1401 SURFACE SCRAPE IDENTIFICATION





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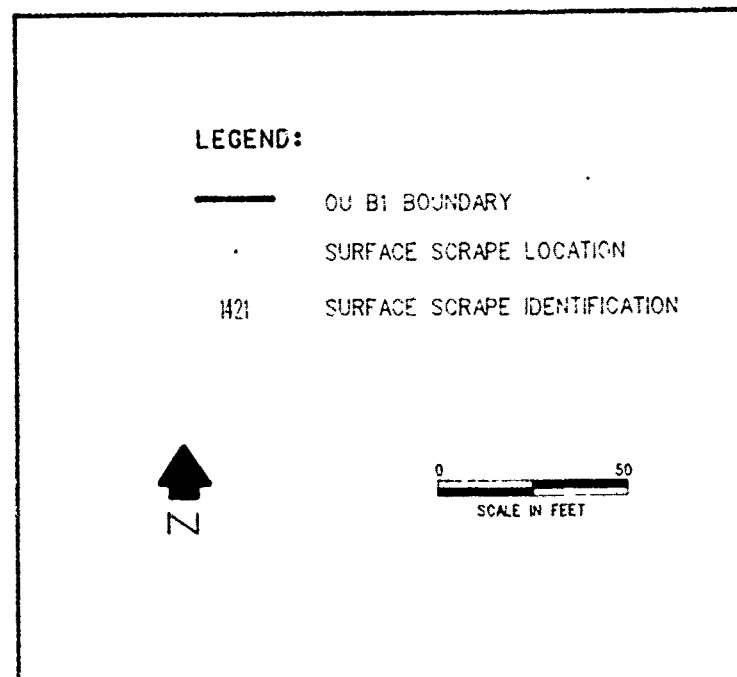
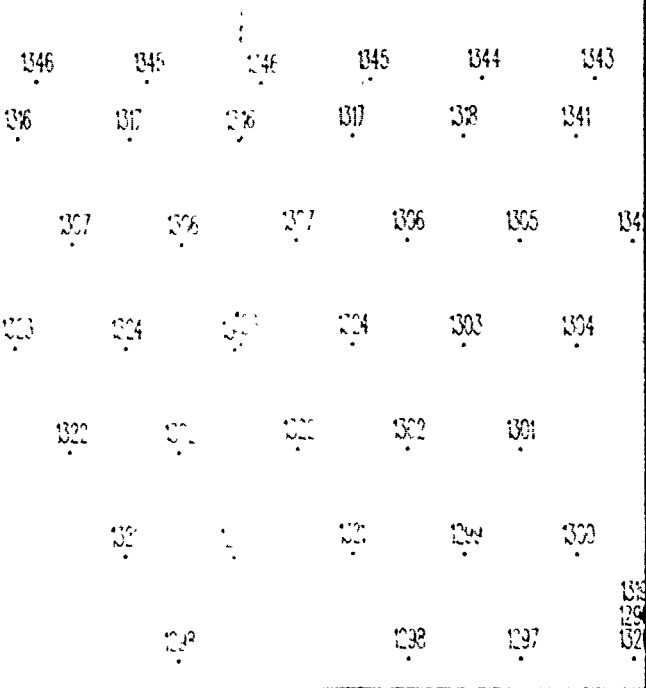


PLATE A-1.

Surface Scrape  
Locations  
in OU B1

McCLELLAN AFB

OU B1 RI

OUBR18 OUB1SCR

## EQUIVALENCY CALCULATIONS

The International Toxicity Equivalency Factor (I-TEF) method was used to convert dioxin and furan isomers to an equivalent concentration of the most toxic isomer, 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). Table A-3 shows the I-TEFs used for converting the dioxin and furan isomers to 2,3,7,8-TCDD equivalents.

A sample calculation and equivalency values are shown in Table A-4. Each isomer concentration is multiplied by its I-TEF to obtain an equivalent concentration of 2,3,7,8-TCDD. These equivalent concentrations for each isomer in a sample are then summed for the sample to obtain the equivalent concentration of 2,3,7,8-TCDD for the entire sample. Equivalency calculations could not be made for three samples collected in OU B1 because only congener classes were identified.

**Table A-3**  
**International Toxicity Equivalency Factors**

Compound	I-TEFs
Mono-, Di-, and TriCDDs	0.000
2,3,7,8-TCDD	1.000
Other TCDDs	0.000
2,3,7,8-PeCDD	0.500
Other PeCDDs	0.000
2,3,7,8-HxCDDs	0.100
Other HxCDDs	0.000
2,3,7,8-HpCDD	0.010
Other HpCDDs	0.000
OCDD	0.001
2,3,7,8-TCDF	0.100
Other TCDFs	0.000
1,2,3,7,8-PeCDF	0.050
2,3,4,7,8-PeCDF	0.500
Other PeCDFs	0.000
2,3,7,8-HxCDF	0.100
Other HxCDFs	0.000
2,3,7,8-HpCDFs	0.010
Other HpCDFs	0.000
OCDF	0.001

Source: NATO/CCMS 1988a

SIGNATURE James G. Szymanski Jr. DATE 2/23/93 CHECKED SR DATE 2-25-93  
 PROJECT OU B1 RI/P3 JOB NO. \_\_\_\_\_  
 SUBJECT Ricin/Furan Equivalency SHEET 1 OF 1 SHEETS

Sample ID = IC053303801N

### Results

### International Toxicity Equivalency Factors (I-TEF)

OCDF	0.2 ppb	0.001
OCDD	1.6 ppb	0.001
1,2,3,4,6,7,8-HpCDF	0.88 ppb	0.0
1,2,3,4,6,7,8-HpCDD	0.24 ppb	0.0

Equation

$$TCDD_{equivalent} = \sum \text{Analyte Result (ppb)} \times I-TEF$$

OCDF	0.2	X 0.001	= 0.0002
OCDD	1.6	X 0.001	= 0.0016
1,2,3,4,6,7,8-HpCDF	0.88	X 0.0	= 0.0
1,2,3,4,6,7,8-HpCDD	0.24	X 0.0	= 0.0
Total			<u>0.0018</u>

Equivalents Concentration  
 of 2,3,7,8-TCDD  
= 0.002 ppb



**Table A-4**  
**Equivalency Calculations for Surface Soil Samples**

Sample ID	Analyte	Result (ppb) - dry	I-TEF	TCDD Equiv. (ppb)
IC05SS03801N	OCDF	0.20	0.001	0.00020
IC05SS03801N	OCDD	1.60	0.001	0.00160
IC05SS03801N	HpCDF 1234678	0.88	0	0.00000
IC05SS03801N	HpCDD 1234678	0.24	0	0.00000
	TOTAL			0.002
IC05SS03901N	OCDF	0.14	0.001	0.00014
IC05SS03901N	OCDD	1.50	0.001	0.00150
IC05SS03901N	HpCDD 1234678	0.17	0	0.00000
	TOTAL			0.002
IC05H004001N	OCDD	1.00	0.001	0.001
	TOTAL			0.001
IC05SS004101N	OCDD	0.55	0.001	0.00055
	TOTAL			0.001
IC05SS004401N	OCDD	1.00	0.001	0.00100
	TOTAL			0.001
IC05SS004601N	OCDD	0.32	0.001	0.00032
	TOTAL			0.000
IC05SH005902N	OCDF	2.30	0.001	0.00230
	TOTAL			0.002
IC05SS003701N	OCDF	0.6	0.001	0.001
IC05SS003701N	OCDD	2.70	0.001	0.003
IC05SS003701N	HpCDD 1234678	0.23	0	0.000
	TOTAL			0.003
IC05SS004201N	OCDD	0.64	0.001	0.001
	TOTAL			0.001
IC05SS220701N	OCDD	0.43	0.001	0.00043
	TOTAL			0.000
IC05SS220901N	OCDF	0.81	0.001	0.001
IC05SS220901N	OCDD	8.30	0.001	0.008
IC05SS220901N	HpCDF 1234678	0.55	0	0.000
IC05SS220901N	HpCDD 1234678	1.10	0	0.000
IC05SS220901N	HxCDF 123478	0.08	0	0.000
IC05SS220901N	PCDF 23478	0.14	0.5	0.070
	TOTAL			0.079
IC05SS221001N	OCDF	0.27	0.001	0.0003
IC05SS221001N	OCDD	1.40	0.001	0.001

**Table A-4**  
**Equivalency Calculations for Surface Soil Samples**

Sample ID	Analyte	Result (ppb) - dry	I-TEF	TCDD Equiv. (ppb)
IC05SS221001N	HpCDD 1234678	0.16	0	0.000
	TOTAL			0.002
IC05SS221101N	OCDF	0.43	0.001	0.0004
IC05SS221101N	OCDD	4.00	0.001	0.004
IC05SS221101N	HpCDD 1234678	0.53	0	0.000
	TOTAL			0.004
IC05SS221201N	OCDF	0.82	0.001	0.001
IC05SS221201N	OCDD	7.10	0.001	0.007
IC05SS221201N	HpCDF 1234678	0.59	0	0.000
IC05SS221201N	HpCDD 1234678	0.69	0	0.000
	TOTAL			0.008
IC05SS221801N	OCDF	0.42	0.001	0.00042
IC05SS221801N	OCDD	3.50	0.001	0.004
IC05SS221801N	HpCDD 1234678	0.46	0	0.000
IC05SS221801N	HxCDF 123478	0.14	0	0.000
IC05SS221801N	PCDF 23478	0.11	0.5	0.055
IC05SS221801N	TCDF 2378	0.048	0.1	0.005
	TOTAL			0.064
IC05SS221901N	OCDF	0.11	0.001	0.00011
IC05SS221901N	OCDD	2.20	0.001	0.002
IC05SS221901N	HpCDD 1234678	0.22	0	0.000
	TOTAL			0.002
IC05SS222001N	OCDD	0.85	0.001	0.001
	TOTAL			0.001
IC05SS222101N	OCDF	0.16	0.001	0.00016
IC05SS222101N	OCDD	1.50	0.001	0.002
IC05SS222101N	HpCDD 1234678	0.18	0	0.000
	TOTAL			0.002
IC05SS126503N	OCDF	2.4	0.001	0.00240
IC05SS126503N	OCDD	0.46	0.001	0.00046
	TOTAL			0.003
IC05SS126603N	OCDF	1.00	0.001	0.001
IC05SS126603N	OCDD	0.28	0.001	0.00028
	TOTAL			0.001
IC05SS126703N	OCDD	0.73	0.001	0.00073
	TOTAL			0.001

# Equivalency Results for Surface Soil Samples

Sample ID	TCDDeq (ppb)
IC05SS191302N	0.0220
IC05SS191402N	0.1700
IC05SS191502N	0.0005
IC05SS191602N	0.0036
IC05SS191702N	0.2000
IC05SS191802N	0.0029
IC05SS191902N	0.0190
IC05SS192002N	0.1000
IC05SS192102N	0.0310
IC05SS192602N	0.0800
IC05SS192702N	0.0043
IC05SS193002N	0.3800
IC05SS193102N	1.9000
IC05SS193202N	3.0000
IC05SS193302N	0.3300
IC05SS193402N	0.1000
IC05SS193502N	0.0094
IC05SS193602N	0.6700
IC05SS193702N	0.1900

NOTE: TCDDeq were reported on the laboratory reports. Therefore, calculations are not shown.

## **APPENDIX B**

### **Quality Control**

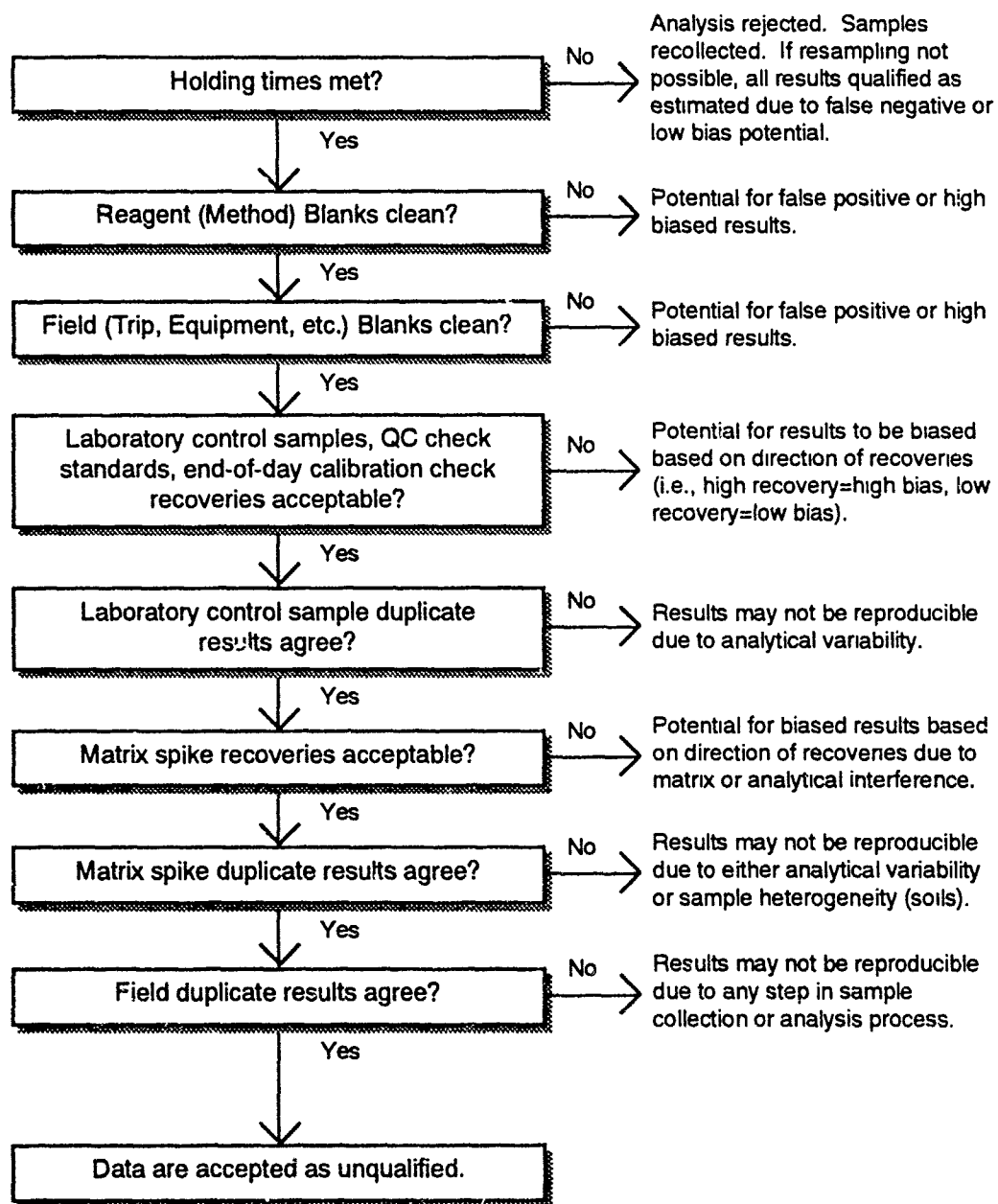
## **B.1 Quality Control**

This section describes the results of the data validation and presents the Quality Control (QC) summary for soil and soil gas samples collected at Operable Unit (OU) B1 during the OU B Remedial Investigation (RI) for both Phase 1 and Phase 2. The validation process (Figure B-1) included evaluation of field and laboratory QC samples to assess contamination from external sources, accuracy of the results, and both field and analytical precision. Data validation for all Phase 1 samples are included in the Quality Assurance/Quality Control (QA/QC) Summary for the OU B RI Phase 1. Samples collected during Phase 2 have been validated and will be documented in a separate QA/QC Summary for Phase 2 after sampling and analysis is concluded for the remaining sites in OU B.

A total of 3,298 soil and soil gas samples were collected at OU B1 and analyzed by 19 analytical methods in both on-site and off-site laboratories during both Phase 1 and Phase 2. Three percent (32) of the samples were soil gas, and 97% (3,266) were soil samples. During Phase 1, 60% (1,992) samples were analyzed using field screening methods in the on-site laboratories.

The results for 16 of the 19 analytical methods met the data quality objectives for precision, accuracy, and completeness. Only three analytical methods did not meet the completeness objective of 90%: extractable TPH by modified Method 8015, SW6010, and Field Soil Gas. Sixteen percent of the extractable TPH results were estimated; surrogate spike problems were the cause for the majority of results being estimated. Fourteen percent of the metals analyzed by SW6010 were estimated because of blank contamination, or accuracy or precision problems. Systematic problems included low spike recoveries for antimony and arsenic (biased low), and lack of precision for manganese. For field soil gas sample results, 19% were estimated and 10% were unusable. Soil gas results were qualified because of missed holding times, poor accuracy, and systematic problems with the identification for three analytes: vinyl chloride, Freon® 12, and 1,1-dichloroethene.

Table B-1 presents the number of individual samples analyzed by the various methods and the percent completeness by method. All results considered "estimated" are flagged with an "E", and all unusable results were eliminated from data sets used in the RI/FS data interpretation. Results obtained from the on-site laboratories during Phase 1 are flagged "S" to indicate that the results were obtained using field screening methods.



NOTE: This table is a summary of QC assessment procedures only. It does not include any of the Quality Assurance (QA) procedures performed (e.g., audits, second column confirmation, QAPP preparations, etc.)

**Figure B-1. Use of Field and Laboratory QC Samples**

MC00BQA1 - 5/17/83 - JH - SAC

**TABLE B-1. SUMMARY OF COMPLETENESS BY METHOD**

Parameter	Method	Number of Samples	Number of Analytes	Total Number of Results	Estimated Results (%)	Unusable Results (%)	Unqualified Results (%)
HVOCs and AVOCs	SW8010/SW8020 (field)	42	11	462	6	0	94
Extractable TPH	SW8015-extractable	77	1	77	16	0	84
Volatile TPH	SW8015-volatile	9	5	45	0	0	100
PCB	SW8080	597	7	4,179	2	1	97
VOCs	SW8240	13	35	455	1	0	99
SVOCs	SW8270	83	65	5,395	2	0	98
Dioxin/Furan	SW8280	70	11	770	0	0	100
Metals (ICP)	SW6010	78	23	1,794	14	0	86
Arsenic	SW7060	55	1	55	2	0	98
Lead	SW7421	55	1	55	0	0	100
Selenium	SW7470/7471	55	1	55	2	0	98
Mercury	SW7740	55	1	55	0	0	100
Thallium	SW7841	55	1	55	0	0	100
Cyanide	SW9010/9012	55	1	55	0	0	100
Total Organic Carbon	SW9060	4	1	4	0	0	100
Soil Gas (GC/MS)	TO-14	3	52	2,704	0	0	100
PCB	Field PCB	1,827	7	12,789	1	0	99
HVOC and AVOC Soil Gas	Field Soil Gas	29	11-15*	380	19	10	71
Field Screen for VOCs	Field VOCs	136	11	1,496	2	0	98

\* The analyte list was increased during the project

Total number of results = number of samples x number of analytes.

## GLOSSARY OF TERMS

- Accuracy** — The ability of a procedure to determine the "true" concentration of an analyte.
- Analyte** — The specific component measured in a chemical analysis.
- Blanks** — Quality control samples that are processed with the field samples but contain only reagents. They are used to assess contamination from sources external to the sample.
- Data Quality Objectives** — Qualitative and quantitative statements formulated at the start of any study to establish the quality of data required from the sampling and analysis procedures.
- Field Blanks for Gas-Phase Samples** — Sample of ultra high purity air collected in the field and processed using the sample sampling and handling procedures as field samples. The results are used to identify sources of contamination in sample collection and handling procedures.
- Field Duplicate Samples** — Second sample collected at the same location as the original sample. Results are used to assess precision, including variability associated with both the laboratory analysis and the sample collection process.
- Laboratory Control Samples** — Blank (reagent water) spikes containing analytes of interest at a specified concentration that are carried through the entire sample preparation and analysis process and are used to demonstrate that the method/instrument is operating within acceptable accuracy limits.
- Matrix Spike** — Solution of target analytes at known concentrations that is spiked into a field sample before sample preparation and analysis to provide estimates of the bias due to matrix interferences.



- Matrix Spike Duplicate** — A second aliquot of the sample spiked for the duplicate analysis. Results of the analysis of the duplicate spiked samples are used to measure recovery between samples and evaluate the precision of the method.
- Method Detection Limit (MDL)** — This is an instrument-specific limit which is determined by a procedure described in 40 CFR 136, Appendix B (July 1990). This procedure consists of analyzing seven aliquots of a standard spiked at three to five times the expected MDL, which is taken through all the sample processing steps of the analytical method. The MDL is defined as three times the standard deviation of the mean value for the seven analyses.
- Percent Recovery** — Percentage of analyte recovered calculated by
- $$\frac{\text{amount found}}{\text{amount spiked}} \times 100$$
- Precision** — The reproducibility of a procedure demonstrated by the agreement between analyses performed on duplicate analyses.
- Quality Assurance and Quality Control** — A system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality.
- Reagent Blanks** — Sample composed of all the reagents used to ensure that interferences from the analytical system, reagents, and glassware are under control. For gas phase analyses, a reagent blank is a sample of ultrapure nitrogen gas that is carried through the entire analytical scheme.
- Relative Percent Difference** — A measure of precision calculated by:
- $$\frac{(R1 - R2) \times 10^2}{R_{\text{avg}}}$$

**Reporting Limit (RL)**

- The lowest level at which a contaminant may be accurately measured and reported without qualification as estimated. The RL takes into consideration the analyst's knowledge of the instrument's capabilities. Because the MDL is a statistically determined value, it is sometimes different than (usually below) what the analyst knows the instrument can reliably detect. Therefore, the difference between the RL and MDL often encompasses analytical judgement. The RL noted on the sample report will also have the dilution or concentration factor for that specific sample taken into account.

**Surrogate Spike Compounds**

- Compounds with characteristics similar to those of compounds of interest that are added to a sample prior to extraction. They are used to estimate the recovery of organic compounds in a sample.

**VOC**

- Volatile organic compound.

**TABLE B-2. DATA QUALITY ASSESSMENT RESULTS**

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
<b>Field GC Method SW8010/ SW8020 (Volatile Organic Compounds)</b>		
Reagent Blanks	No target analytes detected.	Indicates analytical system is free of contamination.
Laboratory Control Samples	Isolated case of both high PCE and low recoveries for vinyl chloride and TCE.	For samples in associated analytical batch, low recoveries indicate a potential for false negative results; therefore "ND" results for vinyl chloride and TCE are qualified.  High recovery indicates a potential for higher than accurate result for PCE. However, PCE was not detected in the confirmation analyses; therefore, no reported results are considered affected.
Matrix Spikes	Six matrix spikes (3 pairs) were evaluated. Several spikes had high recoveries.	High matrix spike recoveries do not affect field sample results because all associated results are "not detected."
Matrix Spike/Matrix Spike Duplicates	Relative percent differences (RPDs) were acceptable.	MS/MSD results indicate analytical precision is acceptable.
Surrogates	Isolated cases of high recoveries.	High surrogate spike recoveries do not affect field sample results because all associated results are "not detected."
	One sample not surrogate spiked.	Sample results qualified as estimated due to lack of available QC information to verify that the analytical system was in control.
Confirmation Analyses	Initially, the confirmation instrument was calibrated for only trichloroethene and tetrachloroethene, the two analytes detected in primary analyses.	Laboratory staff was informed of the deviation in protocol; corrective actions were initiated and all analytes on the confirmation instrument were calibrated. Data quality was not affected, because the two analytes detected during the primary analyses were calibrated on the confirmation instrument.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
<b>Modified Method SW8015E (Extractable Petroleum Hydrocarbons)</b>		
Reagent Blanks	No fuel products detected.	No sample results are affected and the system was free of contamination.
Laboratory Control Samples	All results met specified recovery limits.	Results indicate that the analytical procedures and instrumentation were operating under control.
Matrix Spikes	All matrix spike compounds met specified accuracy limits.	Results indicate good accuracy and absence of bias due to matrix effects.
Matrix Spike/Matrix Spike Duplicates	All RPDs met specified precision limits.	Results indicate the laboratory's ability to replicate the analysis.
Surrogate Spikes	Most reported surrogate spike results met specified recovery limits. Two results were below acceptable limits.	Two associated non-detect results are qualified as estimated for low bias.
	Surrogate spike was not added to 10 samples analyzed by BCA, Emeryville.	All results, although usable, are qualified as estimated due to non-compliance of protocol specification.
<b>Modified Method SW8015V (Volatile Petroleum Hydrocarbons)</b>		
Reagent Blanks	No target analytes detected.	Indicates analytical system is free of contamination.
Laboratory Control Samples	Recoveries were acceptable.	Results indicate analytical system was in control.
Matrix Spikes	Recoveries were acceptable.	Results indicate acceptable accuracy and lack of matrix interferences.
Matrix Spike/Matrix Spike Duplicates	RPDs were acceptable.	MS/MSD results indicate analytical precision is acceptable.
Surrogates	Recoveries were acceptable.	Surrogate recoveries indicate that the method was effective in recovering method analytes and that the analytical system was in control for the analysis of project samples.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
<b>Method SW8080 (PCBs)</b>		
Reagent Blanks	PCB-1260 was detected sporadically in reagent blanks.	Seven sample results are considered estimated and 18 sample results are considered unusable due to reagent blank contamination.
Laboratory Control Samples	All recoveries were within control limits.	Indicates analytical system is in control.
Matrix Spikes	Two spike recoveries were considered unusable.	The potential for matrix interference for two samples could not be evaluated due to incorrect spiking procedures.
Matrix Spike/Matrix Spike Duplicates	One RPD was not within control limits.	The associated PCB-1260 result is considered estimated due to poor precision.
Surrogates	Sporadic instances of both high and low surrogate recoveries were observed.	Results for all seven PCBs for seven samples are considered biased low due to analytical inaccuracy. Results for PCB-1260 for 12 samples are considered high due to analytical inaccuracy.
Documentation	Three samples were misidentified in laboratory analytical reports.	All associated results are considered unusable.
<b>Method SW8080 (PCBs - Surface Water Samples)</b>		
Reagent Blanks	No target analytes detected.	Indicates analytical system is free of contamination.
Matrix Spikes	All matrix spike recoveries met specified accuracy limits.	Results indicate good accuracy and lack of matrix interferences.
Matrix Spike/Matrix Spike Duplicates	RPDs were acceptable.	MS/MSD results indicate analytical precision is acceptable.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
<b>Method SW8240 (Volatile Organic Compounds)</b>		
Reagent Blanks	Sporadic occurrences of methylene chloride (common laboratory contaminant) reported in reagent blanks.	Five sample results are qualified as estimated for potential laboratory contamination. Overall, the analytical systems appear to be relatively free of contamination.
Laboratory Control Samples	All results met specified recovery limits.	Results indicate that the analytical procedures and instrumentation were operating under control.
Matrix Spike	All spike compounds met specified accuracy limits.	Results indicate good accuracy and absence of bias due to matrix effects.
Matrix Spike/Matrix Spike Duplicate	All RPDs met specified precision limits.	Results indicate the laboratory's ability to replicate the analysis.
Surrogate Spikes	All spike compounds met specified recovery limits.	Results indicate good recovery of target analytes from this matrix.
<b>Method SW8270 (Semivolatile Organic Compounds)</b>		
Reagent Blanks	Only sporadic occurrences of bis(2-ethylhexyl) phthalate (common laboratory contaminant) were reported at levels near the reporting limit.	Three sample results were qualified as estimated due to potential laboratory contamination. Overall, the analytical systems were free of contamination.
Laboratory Control Samples	Systematic low recovers for hexachlorocyclopentadiene.	Eighty-three associated results (including non-detects) are qualified as estimated for low bias. Hexachlorocyclopentadiene is subject to thermal decomposition in the GC inlet.
	Non-systematic occurrences of low recoveries for several analytes.	Thirty-four associated results (including non-detects) for 11 analytes are qualified as estimated for low bias.  Overall, analytical procedures and instrumentation were under control for the majority of analytes (53 of 65).

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
Matrix Spike	One occurrence of low recovery for pyrene.	One pyrene result is qualified as estimated for low bias.  Overall, the results indicate good accuracy and no systematic bias.
Matrix Spike/Matrix Spike Duplicate	All RPDs met specified precision limits.	Results indicate the laboratory's ability to replicate the analysis.
Surrogates	One occurrence of low recoveries for acid surrogate spike compounds.	Eight results (including non-detects) for acid compounds are qualified as estimated for low bias. Phenolic compounds often show poor chromatography with column degradation or if the system is contaminated with high boiling material.  Overall, the results indicate good recovery of target analytes from this matrix.
<b>Method SW8280 (Dioxins/Furans)</b>		
Reagent Blanks	No target analytes detected.	Indicates analytical system is free of contamination.
Laboratory Control Samples	All recoveries were within control limits.	Indicates analytical system is in control.
Surrogates	All recoveries were within control limits.	Indicates analytical system is in control.
Laboratory Duplicates	Laboratory duplicate RPDs are within control limits.	Indicates good analytical precision (i.e., results are reproducible).
<b>Method 8280 (Dioxins/Furans Surface Water Samples)</b>		
Reagent Blanks	Several low level detections in blanks and one low level Estimated Maximum Possible Concentration (EMPC) value of octachlorodibenzo-p-dioxin (OCDD) in one blank.	Associated results not affected. The EMPC result reported in the blank was due to a small interfering peak. Remainder of detections in blanks were less than associated sample results by at least one order of magnitude (a factor of 10).
Laboratory Control Samples	All recoveries were within specified limits.	Indicates analytical system was in control.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
Laboratory Control Sample Duplicates	All RPDs met specified limits.	Indicates acceptable laboratory precision.
Matrix Spikes	All recoveries were within specified limits.	Indicates good accuracy and absence of bias due to matrix effects.
Matrix Spike/Matrix Spike Duplicates	All RPDs met specified limits.	Indicates acceptable laboratory precision.
Internal Standards	One low heptachlorodibenzofuran (HpCDF) and one high OCDD recovery. Remainder of recoveries were acceptable.	Associated results (EM1427-HpCDF and EM1432-OCDD) should be considered estimates. Overall results indicate method was effective in recovering target analytes.
<b>Method SW6010 (Metals by ICP)</b>		
Reagent Blanks	Two analytes, antimony and molybdenum, were detected in reagent blanks.	Antimony results for 13 sample and molybdenum results for 3 samples were qualified as estimated due to blank contamination. These results may be biased high.
	None of the remaining 21 analytes were detected in reagent blanks.	Indicates analytical system is free from contamination for those 21 analytes.
Laboratory Control Samples	LCS recoveries for all analytes are acceptable.	Indicates analytical system is in control.
Matrix Spikes	For two analytes, antimony and arsenic, systematic low recoveries were observed.	All sample results for antimony and arsenic are qualified as estimated due to matrix interference.
	For the remaining 21 analytes, no systematic recovery problems are indicated. Thirteen sporadic instances of recoveries that were not within control limits were observed.	Two sample results each for lead, nickel, and zinc; and one sample result each for calcium, copper, and thallium are qualified as estimated due to matrix interference. Two sample results for calcium and one sample result each for barium, chromium, copper, and zinc are qualified as estimated due to matrix interference.

(Continued)



TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
Matrix Spike Duplicates	RPDs for manganese were consistently out of control limits.  No systematic problems indicated for the remaining 22 analytes. Six sporadic instances of poor RPDs were observed.	All manganese results are qualified as estimated due to poor analytical precision.  Two results each for calcium and lead, and one result each for copper and zinc are considered estimated due to poor analytical precision.
<b>Methods SW7060, SW7470, SW7421, SW7440, SW7841 (Metals by Graphite Furnace)</b>		
Reagent Blanks	No analytes detected.	Indicates analytical systems are free of contamination.
Laboratory Control Samples	LCS recoveries are within control limits.	Indicates analytical system is in control.
Matrix Spikes	Method SW7060: one matrix spike recovery was below control limits.  Method SW7470: one matrix spike recovery was above control limits.	One sample result for arsenic is qualified as estimated due to low bias, evidenced by matrix interference.  One sample result for mercury is qualified as estimated due to high bias, evidenced by matrix interference.
Matrix Spike Duplicates	Remaining methods: recoveries were within control limits.  Methods SW7060 and SW7470: One RPD for each of these methods was not within control limits.  Remaining methods: RPDs are within control limits.	Indicates good analytical precision. No matrix interference demonstrated.  One sample result for each method is qualified as estimated due to poor precision.  Indicates good analytical precision.
<b>SW9012 (Cyanide)</b>		
Reagent Blanks	No analytes detected.	Indicates analytical system is free of contamination.
Laboratory Control Samples	LCS recoveries are acceptable.	Indicates analytical system is in control.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
Matrix Spikes	Recoveries are within control limits.	Indicates good analytical precision. No matrix interference demonstrated.
Matrix Spike Duplicates	RPDs are within control limits.	Indicates good analytical precision.
<b>SW9060 (Total Organic Carbon)</b>		
Reagent Blanks	Not performed for this method.	---
Laboratory Control Samples	LCS recoveries are within control limits.	Indicates analytical system is in control.
Laboratory Control Sample Duplicates	RPDs are within control limits.	Indicates good analytical precision.
Matrix Spikes	Not performed for this method.	---
<b>Field PCB Results</b>		
Reagent Blanks	No target analytes detected.	Indicates analytical system is free of contamination.
End-of-the-day calibration checks	Recoveries are occasionally higher than acceptable limits.	Possibility that results from samples analyzed towards the end of the day are either false positives or artificially high.
Matrix Spikes	Isolated cases of both low and high recoveries. Associated calibration check (method spike) recoveries meet specifications.	Indicates matrix interference. Does not appear to be a systematic problem. Associated sample results are qualified.
<b>Field VOC (On-Site) Screening Results</b>		
Reagent Blanks	No analytes were detected in reagent blanks.	Analytical system is free of contamination.
QC Check Standards	Systematic problem with low vinyl chloride recoveries.	Vinyl chloride results (all ND) are qualified for low bias.
Surrogate Spikes	Four surrogate compounds were added to each field sample prior to analysis. Only one surrogate in one sample did not meet acceptance criteria.	Analytical system is in control and no matrix interferences affect results.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
Laboratory Duplicates	Eleven laboratory duplicate pairs were analyzed. Only one analyte was detected in one laboratory duplicate sample.	Analytical precision cannot be assessed.
Field Duplicates	Seven field duplicate samples were collected and analyzed. No analytes were reported.	Sampling precision cannot be assessed.
<b>Soil Gas Field GC Results</b>		
Reagent (System) Blanks	No analytes detected in system blanks.	Analytical system is free of contamination.
Field Blanks	1,1-DCE and a compound initially identified as Freon® 12 (dichloro-difluoromethane) were reported in most of the equipment blanks collected between February and June. Hydrocarbons (toluene, xylenes) detected sporadically in equipment blanks.	Associated results are qualified as unusable because analytes are not present in field samples.
Laboratory Duplicates	Four laboratory duplicates were analyzed. RPDs range from 0 to 11.	Acceptable analytical precision. Frequency of laboratory duplicate analyses increased.
Field Duplicates	One field duplicate pair was collected and analyzed. No analytes were reported.	Sampling precision cannot be assessed.
Field GC Confirmation (Field GC/Canister Data Pairs)	Three field GC/canister data pairs were collected and analyzed. Comparison of Field GC results to canister (GC/MS) results indicate that vinyl chloride, Freon® 12, and 1,1-DCE appear to have been incorrectly identified or the result of equipment contamination associated only with the Field GC results.	Vinyl chloride, Freon® 12, and 1,1-DCE detected results are flagged as unusable.

(Continued)

TABLE B-2. (Continued)

Method/QC Sample Type	Assessment of Results	Effect on Data Quality
Quality Control Check Samples	Analytes sporadically recovered above or below QC criteria.	Low recoveries indicate a potential for false negative or low bias results. Associated sample results qualified as estimated. High LCS recoveries do not affect field sample results because all associated results are "not detected."
	QC check samples not analyzed occasionally.	All associated sample results qualified as estimated due to lack of information regarding stability of analytical system.
Holding Times	Several samples missed 4 hour holding time.	The results for these samples are qualified as estimated. The results may be false negatives or biased low.
<b>Method TO-14 (Soil Gas Canister Results)</b>		
Reagent Blanks	No target analytes or unidentified compounds detected.	Analytical system is free of contamination.
Laboratory Control Samples	Recoveries between 88 and 127% (acceptance criteria: 70 to 130%).	Analytical system is in control.
Surrogate Spikes	Recoveries between 88 and 115% (acceptance criteria: 70 to 130%).	Analytical system is in control.

TCE = Trichloroethene  
 PCE = Tetrachloroethene  
 ND = Not detected  
 RPD = Relative percent difference  
 MS/MSD = Matrix Spike/Matrix Spike Duplicate  
 QC = Quality control  
 LCS = Laboratory control sample  
 GC = Gas chromatography

## **QUALITY CONTROL SUMMARY**

### **Phase 2 (OU B1 Drainage Ditches)**

## **1.0 INTRODUCTION**

This report describes the results from Radian's data validation process for the OU B1 drainage ditch sediment sampling effort conducted in April 1993. The validation process comprised evaluation of blanks, spikes and duplicates to establish the quality of the data.

Analytical data generated during the OU B1 RI sediment sampling event were evaluated using data quality objectives specified in the OU B RI Sampling and Analysis Plan (SAP) (Radian, 1991), and the QA/QC criteria specified in the McClellan AFB Quality Assurance Project Plan (QAPP) (Radian, 1991).

### **1.1 Summary**

One hundred eighty-three individual field samples were collected and analyzed from 13 locations in OU B1 drainage ditches. Analyses of sediment samples by 19 analytical methods were performed at several off-site laboratories.

### **1.2 QC Summary**

A total of 2,136 individual results were produced for this effort; 2,018 of these were unqualified (95%). The completeness objective of 90% was met. Table 1-1 notes analytical methods with significant data quality problems. Table 1-2 summarizes the analytical methods, total number of samples collected, and the number of unqualified results for each method.

Only five of the 19 methods, SW7060, SW7740, SW7841, SW8150 and SW9310, had more than 10% of their sediment sample data qualified as estimated. Reagent blank contamination for SW9310 and low spike recoveries for SW7060, SW7740, SW7841, and SW8150 were the primary reasons for qualifying results.

The Method of Standard Addition (MSA) was used to obtain sample results for Methods SW7060, SW7130, SW7421, SW7740, and SW7841 (all atomic absorption [AA] methods). Low matrix spike recoveries for Methods SW7060, SW7740, and SW7841 required the use of the MSA, and all associated sample results are considered estimated because of potential for low bias. Accuracy or matrix interference could not be assessed for

Methods SW7130 and SW7421; matrix spike recoveries were not calculated for these analytes because of high concentrations in the samples.

The data validation and QC assessment results are shown in Table 1-3.

TABLE 1-1. SUMMARY OF DATA QUALITY

Method Name	Method	Significant Data Quality Problems <sup>a</sup>	Analytes Affected
TPH-V	SW8015-volatile	No	
Pest/PCB	SW8080	No	
Pesticides	SW8140	No	
Herbicides	SW8150	Yes	2,4,5-TP, 2,4,5-T, Dinoseb (low bias)
SVOCs	SW8270	Yes	Hexachlorocyclopentadiene (low bias) 2,4-Dimethylphenol (low bias)
Dioxins/Furans	SW8280 <sup>b</sup>	No	
Metals	SW6010	Yes	Molybdenum (high bias), Calcium (low bias, poor reproducibility)
Arsenic	SW7060	Yes	Arsenic (low bias)
Cadmium	SW7130	No	
Hexavalent Chromium	E218.6	No	
Lead	SW7421	No	
Mercury	SW7471	No	
Selenium	SW7740	Yes	Selenium (low bias)
Thallium	SW7841	Yes	Thallium (low bias)
Cyanide	SW9012	No	
Total Organic Carbon	E410.1	No	
Alkalinity	E310.1	No	
Gross Alpha and Beta	SW9310	Yes	Gross Alpha, Gross Beta (high bias)
Gamma	E901.1	No	

<sup>a</sup> See Table 1-3 for data quality assessment results.

<sup>b</sup> Total concentrations per isomer class and toxic isomer concentrations using Modified Method SW8280.

TPH-V = Volatile total petroleum hydrocarbons  
Pest/PCB = Pesticides and polychlorinated biphenyls  
SVOCs = Semivolatile organic compounds



TABLE 1-2. SUMMARY OF COMPLETENESS BY METHOD

Method Name	Method	Number of Samples	Number of Analytes	Total Number of Results <sup>a</sup>	Estimated Results (%)	Unusable Results (%)	Unqualified Results (%)
TPH-V	SW8015-volatile	4	5	20	0 (0)	0	20 (100)
Pest/PCB	SW8080	15	26	390	0 (0)	0	390 (100)
Pesticides	SW8140	5	21	105	1 (1)	0	104 (99)
Herbicides	SW8150	5	10	50	36 (72)	0	14 (28)
SVOCs	SW8270	15	65	975	28 (3)	0	947 (97)
Dioxins/Furans	SW8280 <sup>b</sup>	5	25	125	0 (0)	0	125 (100)
Metals	SW6010	14	23	322	4 (1)	7 (2)	311 (97)
Arsenic	SW7060	14	1	14	14 (100)	0	0 (0)
Cadmium	SW7130	14	1	14	0 (0)	0	14 (100)
Hexavalent Chromium	E218.6	14	1	14	0 (0)	0	14 (100)
Lead	SW7421	14	1	14	0 (0)	0	14 (100)
Mercury	SW7471	14	1	14	0 (0)	0	14 (100)
Selenium	SW7740	14	1	14	0 (0)	0	14 (100)
Thallium	SW7841	5	1	5	5 (100)	0	0 (0)
Cyanide	SW9012	14	1	14	0 (0)	0	14 (100)
Total Organic Carbon	E410.1	4	1	4	0 (0)	0	4 (100)
Alkalinity	E310.1	4	4	16	0 (0)	0	16 (100)
Gross Alpha and Beta	SW9310	5	2	10	9 (90)	0	1 (10)
Gamma	E901.1	4	4	16	0 (0)	0	16 (100)
Totals		183	194	2,136	111 (5)	7 (<1)	2,018 (95)

<sup>a</sup> Number of samples times the number of analytes.<sup>b</sup> Total concentrations per isomer class and toxic isomer concentrations by Modified Method SW8280.

TPH-V = Volatile total petroleum hydrocarbons

Pest/PCB = Pesticides and polychlorinated biphenyls

SVOCs = Semivolatile organic compounds

TABLE 1-3. QC ASSESSMENT, OU B1 DRAINAGE DITCH SAMPLING EFFORT, APRIL 1993

Method*	Reagent Blank Problems	Laboratory Control Sample Problems (accuracy)	Laboratory Sample Duplicate Problems (precision)	Matrix Spike Problems (accuracy)	Matrix Spike Duplicate Problems (precision)	Field Duplicate Problems (precision)	Surrogate Spike Problems (accuracy)
SW8015-V	None	None	None	None	None	N/A	None
SW8080	None	None	N/A	None	None	None	Surrogate spikes were diluted out for 8 of 15 samples due to high concentrations of PCBs present, and therefore, surrogate recoveries could not be calculated. Surrogate recoveries for 7 remaining samples were acceptable. No sample results were qualified.
SW8140	None	None	N/A	One pair of azinphos methyl recoveries were low. One sample result was qualified as estimated.	None	None	None
SW8150	None	Low recoveries for dinoseb, 2,4,5-T, and 2,4,5-TP. Results for each of these compounds qualified as estimates in all five samples.	N/A	Low recoveries for dalapon. One sample result qualified as estimated.	None	None	Two surrogate recoveries were low. All results in the two associated samples were qualified as estimated.

(Continued)

TABLE 1-3. (Continued)

Method*	Reagent Blank Problems	Laboratory Control Sample Problems (accuracy)	Laboratory Control Sample Duplicate Problems (precision)	Matrix Spike Problems (accuracy)	Matrix Spike Duplicate Problems (precision)	Field Duplicate Problems (precision)	Surrogate Spike Problems (accuracy)
SW8270	None	Systematic low recoveries for 2,4-dimethylphenol and hexachlorocyclopentadiene; sporadic low recoveries for benzoic acid. 28 sample results qualified as estimated.	Sporadic occurrences of variability with different analytes. No sample results are qualified.	None	None	None	None
SW8280	None	None	None	None	None	N/A	None
SW6010	Molybdenum in one reagent blank. Seven sample results qualified as unusable.	None	None	Six recoveries (calcium, iron, manganese, zinc) in two matrix spikes did not meet specified limits. Four sample results were qualified as estimated.	Three RPDs (calcium, manganese, zinc) in the matrix spike duplicate pair did not meet specified limits. Three sample results were qualified as estimated.	One RPD (calcium) in the single field duplicate pair did not meet specified limit. Two sample results qualified as estimated.	NA
SW7060, SW7130, SW7421, SW7740, and SW7841	None	None	None	Low recoveries in two matrix spikes for methods SW7060, SW7740, and SW7841. Thirty-three associated sample results qualified as estimated.	None	None No field duplicate pair analyzed for SW7841	NA

(Continued)

TABLE 1-3. (Continued)

Method <sup>a</sup>	Reagent Blank Problems	Laboratory Control Sample Problems (accuracy)	Laboratory Control Sample Duplicate Problems (precision)	Matrix Spike Problems (accuracy)	Matrix Spike Duplicate Problems (precision)	Field Duplicate Problems (precision)	Surrogate Spike Problems (accuracy)
SW7060, SW7130, SW7421, SW7740, and SW7841 (Continued)				Spike recoveries were not calculated for methods SW7130 and SW7421 due to high native sample concentrations. No sample results were qualified.			
SW7471	None	None	None	None	None	None	NA
E218.6	None	None	None	None	None	None	NA
SW9012	None	None	None	None	None	N/A	NA
E901.1	None	None	None	NA	NA	N/A	NA
SW9310	Gross Alpha and Gross Beta in reagent blank. Nine sample results qualified as estimated.	None	None	NA	NA	Two RPDs, one each for gross alpha and beta, did not meet specified limits. Four samples results qualified as estimated.	NA
E310.1	Bicarbonate in one reagent blank. No associated sample results affected.	None	None	None	None	N/A	NA
E410.1	None	None	None	None	None	None	NA

<sup>a</sup> Method names can be found in Table 1-1.

MSA = Method of standard addition.

NA = Not applicable.

N/A = Not available; QC sample not analyzed or not collected for the method.

PCB = Polychlorinated biphenyls.

RPD = Relative percent difference.

## **APPENDIX C**

### **Vadose Zone Modeling**

## C.1 VADOSE ZONE MODELING

After a thorough selection process, the VAPOUR-T Model (Mendoza, 1992) was chosen for modeling of contaminant vapor and aqueous migration through the vadose zone in Operable Unit B1 (OU B1) of McClellan Air Force Base (AFB). VAPOUR-T was selected because of its capability to characterize migration of volatile compounds by the mechanisms of aqueous phase diffusion, dispersion, and advection and vapor phase diffusion, dispersion, and density-driven advection in both horizontal and vertical directions. Because of its capabilities, the model was selected for use in determining the potential for vapor phase contaminants to migrate from depths in the vadose zone to the groundwater or air exposure pathways under current or estimated future conditions. On the basis of the model's results, decisions on remedial response actions for soil gas contamination may be made.

For the model results to be accepted in the decision-making process it was necessary to demonstrate the model's applicability to conditions in the vadose zone of Operable Unit B. A sensitivity analysis was designed and performed with the model to identify physical parameters that would cause the greatest change in quantitative model results (for example, time period of migration, mass loss of contaminants to exposure pathways, or contaminant concentrations at the boundaries of the vadose zone). The sensitivity analysis was performed with a range of parameters and volatile organic compound (VOC) concentrations representing conditions in the vadose zone of McClellan AFB.

The sensitivity analysis consisted of 22 computer "runs" from which it was determined that model results were most sensitive to:

- Initial volatile contaminant mass distribution (concentrations and depth);
- Total air-filled porosity in soils;
- Air and water permeability;
- Presence or absence of surface cover, which would affect surface infiltration and losses to air; and
- Partitioning of contaminants to soils.

## C.2 Conceptual Framework for Vadose Zone Modeling in OU B1

The conceptual framework for vadose zone modeling consists of estimated contaminant distribution from analytical data, physical dimensions of the subsurface volume, geology and physical parameters of subsurface layers, and surface conditions. Analytical data from sampling in OU B1 indicate that the soil volume containing the greatest mass of PCB contamination, which was selected for modeling, is centered 300 feet to 450 feet west of the soil volumes containing the greatest VOC masses. Analyses of surface and subsurface soils were used to estimate a cylindrical soil volume 30 meters in diameter and 2 meters thick initially contaminated with 1,000 mg/kg PCB near surface and 500 to 160 mg/kg in deeper soils. The estimated diameters of soil volumes contaminated with VOCs from OU B1 were: TCE, 20 meters; PCE, 20 meters; 1,1-DCE, 20 meters; cis-1,2-DCE, 30 meters, and benzene, 60 meters. The initial vertical distribution of VOC contamination was estimated from downhole soil gas sample analyses and conservative gradations in concentration upward and downward from sampling points. Initial VOC distributions estimated for each conceptual model are darkly shaded in Figures 3-3 through 3-8 in Section 3-4.

Subsurface geology used in the conceptual framework is a composite of lithologic descriptions from 5 borings drilled to 20 to 40 feet below surface and 2 borings drilled to 100 feet below surface. Most of the physical parameters assigned to subsurface layers for modeling were the same for both PCB and VOC-contaminated areas. However, moisture content, total porosity, and fraction of organic carbon values measured in shallow PCB-contaminated soils differed from those in the VOC-contaminated area. Parameter values for the soil volume surrounding the PCB contamination were used because they were most likely to affect simulated or actual migration of PCB.

The model was initially run to simulate the migration of PCB and each VOC with no surface cover that could impede the loss of vapor to the surface or the infiltration of surface water. The model was run a second time for the PCB, TCE, 1,1-DCE, and cis-1,2-DCE-contaminated soil volumes with a low permeability, asphalt surface cover. Permeability, moisture, and infiltration values used for the asphalt cover are estimated averages for a 30-year period. The average values are based on the assumption that the cover would age from nearly impervious when freshly laid to dry, porous, and locally cracked with long-term use and reasonable maintenance.

Tables C-1, C-2, and C-3 summarize parameters input to the model for OU B1. Values in Table C-1 were held constant for all model runs, with the exception of system temperature, which was raised to 25 C for PCB and benzene because contaminant-specific constants for 20 C could not be found.

Some values (e.g., soil moisture, total porosity, fraction organic carbon) in Table C-2 were varied because the physical parameters measured in the PCB-contaminated soils were different than those in the VOC-contaminated soils.

Figures C-1 through C-10 are cross sections through one-half of the contaminated soil volumes. Figures C-1 through C-6 show the results from model-predicted migration after 30 years in the uncovered soil cases. Figures C-7 through C-10 show the model results for the soil volumes covered by the asphalt cover aging over 30 years. The isopleths on each figure illustrate the ratio of contaminant concentrations,  $C_{30 \text{ yr}}/C_{\text{initial}}$ , in soil gas after 30 years of simulated migration. The outermost isopleth represents the points within the subsurface at which the concentration in soil gas will be 0.001 of the initial, greatest soil gas concentration in the soil volume. At the bottom of each figure, the concentration of the contaminant along the 0.001 isopleth is given for soil gas, liquid, and solid, assuming equilibrium exists among the three phases.



**TABLE C-1. SYSTEM PARAMETERS USED IN VADOSE ZONE MODELING**

Parameter	Value
Brooks-Corey pore distribution index	2.00
Longitudinal dispersivity (m)	0.50
Transverse dispersivity (m)	0.05
Soil air viscosity (PAs)	$1.8 \times 10^{-5}$
Gram molecular weight of soil air (g/mol)	28.75
Absolute system pressure (kPA)	$1.013 \times 10^2$
System temperature (°C)	20, 25
Fluid compressibility (l/PA)	0

TABLE C-2. POROUS MEDIUM PARAMETERS USED IN VADOSE ZONE MODELING

Parameter	Sand	Silt	Asphalt Cover <sup>a</sup>
<b>Parameter for TCE, cis-1,2-DCE, PCE, 1,1-DCE, and benzene-contaminated soils</b>			
Permeability in r direction (m <sup>2</sup> )	$1.3 \times 10^{-10}$	$1.0 \times 10^{-14}$	$8.0 \times 10^{-14}$
Permeability in z direction (m <sup>2</sup> )	$1.3 \times 10^{-11}$	$1.0 \times 10^{-15}$	$8.0 \times 10^{-14}$
Total Porosity	0.30	0.55	0.20
Residual moisture content	0.2	0.4 - 0.47	0.05
Soil moisture content	0.2	0.4 - 0.47	0.05
Fraction of organic carbon	0.0035	0.01	0.10
Bulk density (g/cm <sup>3</sup> )	1.5	1.4	2.0
Rate of percolation (m/s)	$2.2 \times 10^{-9}$ - $2.2 \times 10^{-11}$	$2.2 \times 10^{-9}$ - $2.2 \times 10^{-11}$	$2.2 \times 10^{-11}$ <sup>b</sup>
<b>Parameter for PCB-contaminated soils</b>			
Permeability in r direction (m <sup>2</sup> )	$1.0 \times 10^{-10}$	$1.0 \times 10^{-14}$	$8.0 \times 10^{-14}$
Permeability in z direction (m <sup>2</sup> )	$1.0 \times 10^{-11}$	$1.0 \times 10^{-15}$	$8.0 \times 10^{-14}$
Total Porosity	0.30	0.50	0.20
Residual moisture content	0.2	0.4	0.05
Soil moisture content	0.25	0.45	0.05
Fraction of organic carbon	0.007	0.005	0.10
Bulk density (g/cm <sup>3</sup> )	1.5	1.4	2.0
Rate of percolation (m/s)	$2.5 \times 10^{-9}$ - $2.2 \times 10^{-11}$	$2.5 \times 10^{-9}$ - $2.2 \times 10^{-11}$	$2.2 \times 10^{-11}$

<sup>a</sup> Parameters used to simulate a low permeability, asphalt cover, including the effects of age, for four model runs.

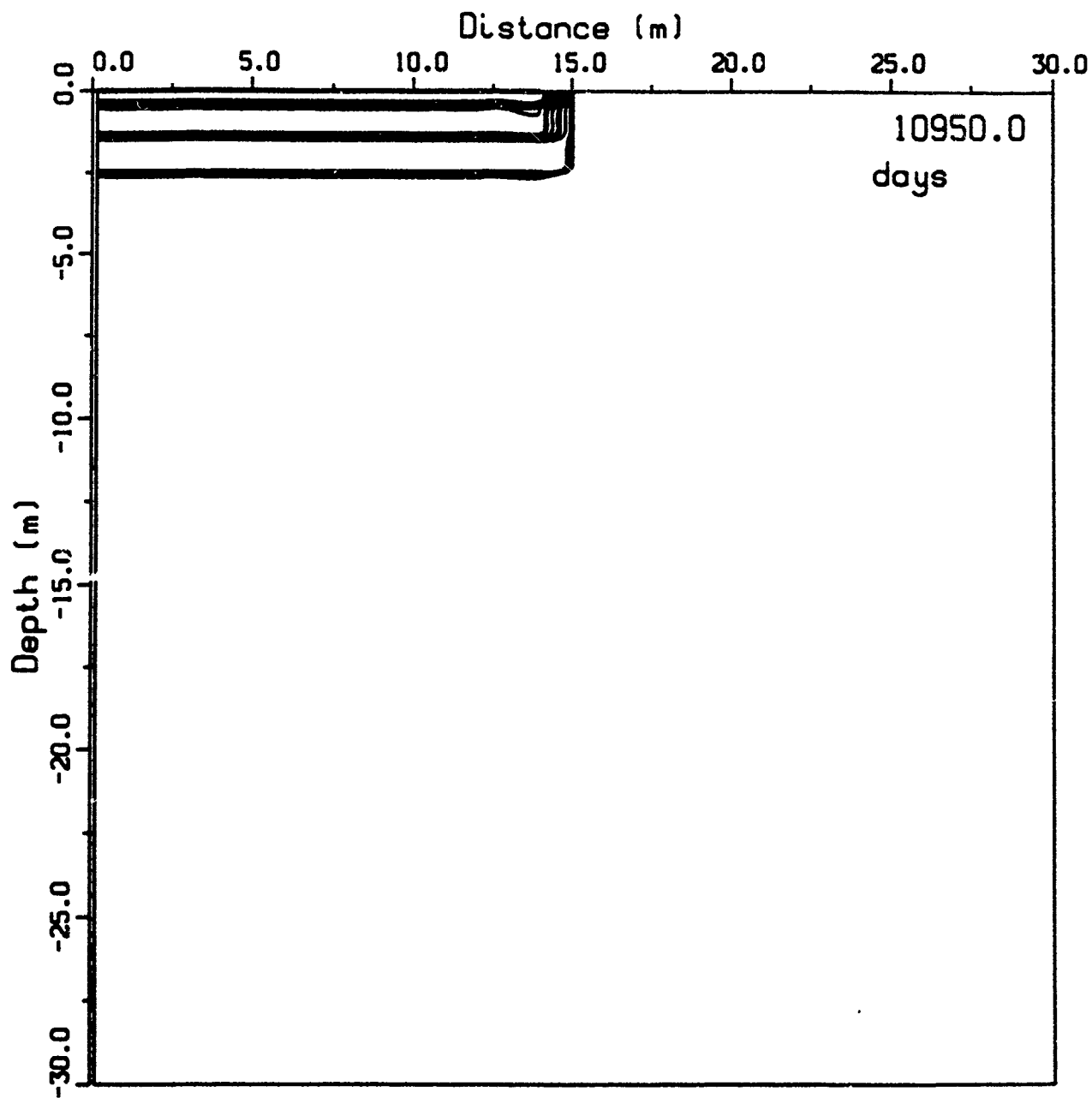
<sup>b</sup> Rate of percolation used for cover and all subsurface units to simulate reduced infiltration caused by the asphalt cover.

TABLE C-3. COMPOUND-SPECIFIC PARAMETERS AT 20 C USED IN VADOSE ZONE MODELING

Parameters (units)	Compound				
	PCB	PCE	TCE	1,1-DCE	Benzene <sup>a</sup> cis-1,2-DCE
Gaseous diffusion coefficient in r direction (m <sup>2</sup> /s)	5.86 x 10 <sup>-7</sup>	7.4 x 10 <sup>-6</sup>	8.11 x 10 <sup>-6</sup>	9.1 x 10 <sup>-6</sup>	1.41 x 10 <sup>-5</sup>
Gaseous diffusion coefficient in z direction (m <sup>2</sup> /s)	5.86 x 10 <sup>-6</sup>	7.4 x 10 <sup>-6</sup>	8.11 x 10 <sup>-6</sup>	9.1 x 10 <sup>-6</sup>	1.41 x 10 <sup>-5</sup>
Henry's Law Constant (unitless concentration ratio)	0.018	0.546	0.297	0.857	0.155
Gas viscosity (Pas)	3.6 x 10 <sup>-4</sup>	15.1 x 10 <sup>-6</sup>	9.5 x 10 <sup>-6</sup>	9.9 x 10 <sup>-6</sup>	9.78 x 10 <sup>-6</sup>
Aqueous diffusion coefficient (m <sup>2</sup> /s)	5.39 x 10 <sup>-10</sup>	8.2 x 10 <sup>-10</sup>	7.6 x 10 <sup>-10</sup>	1.1 x 10 <sup>-9</sup>	1.13 x 10 <sup>-9</sup>
Gram molecular weight (g/mol)	372	168	131.4	97.9	96.9
Organic-carbon partitioning coefficient (ml/g)	100,000	364	126	65	134

<sup>a</sup> At 25 C.

case1ic5pcb30yr

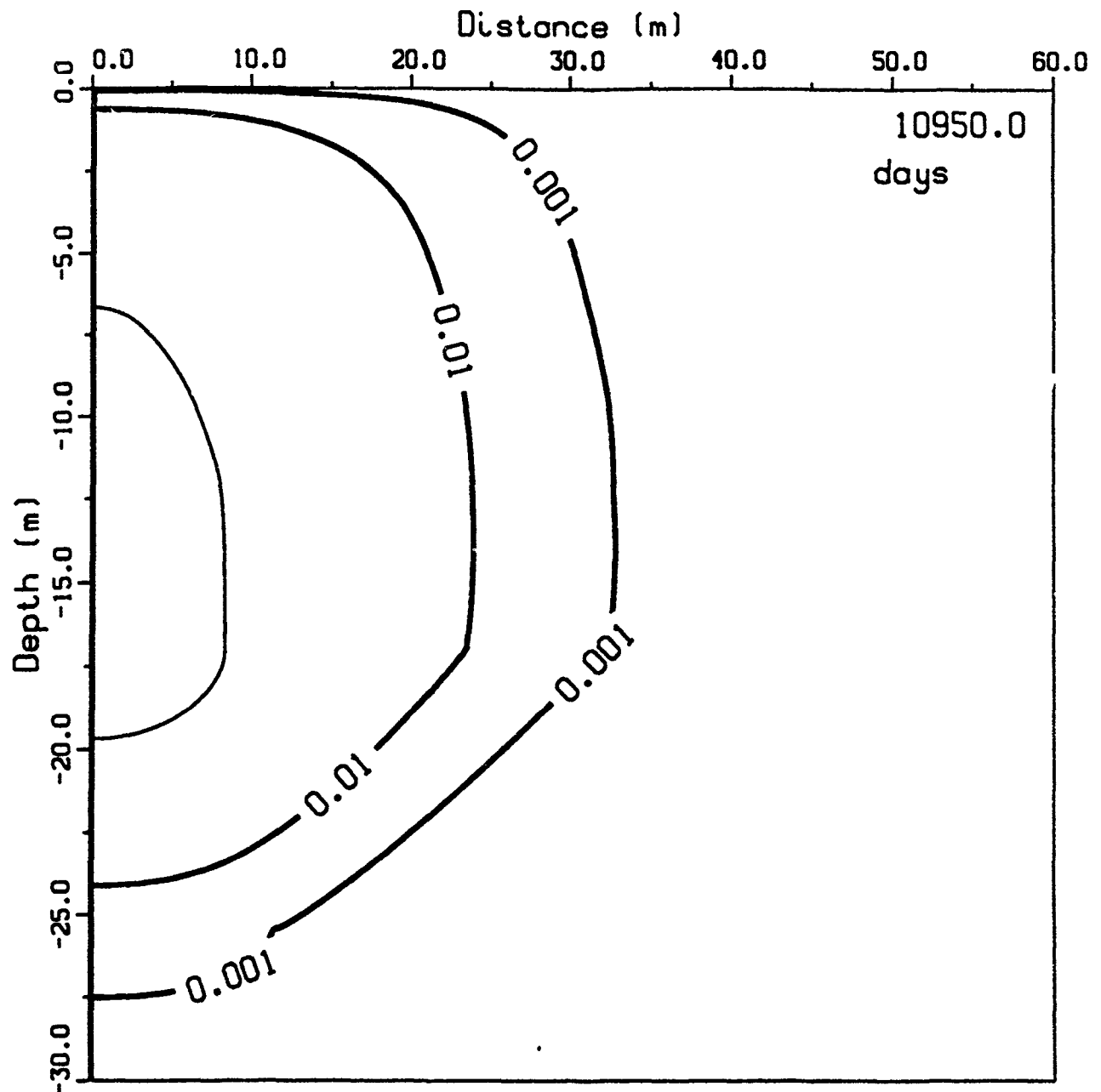


Deepest Isopleth Concentrations

$9.2 \times 10^{-10}$  grams/liter in soil gas  
 $5.1 \times 10^{-8}$  grams/liter in soil water  
 $5.3 \times 10^{-5}$  grams/liter on soil solids

FIGURE C-1. AROCHLOR 1260 DISTRIBUTION AFTER 30 YEARS WITHOUT  
A SURFACE COVER, CROSS SECTION WITH MODEL  
RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

case1ic5dce30yr

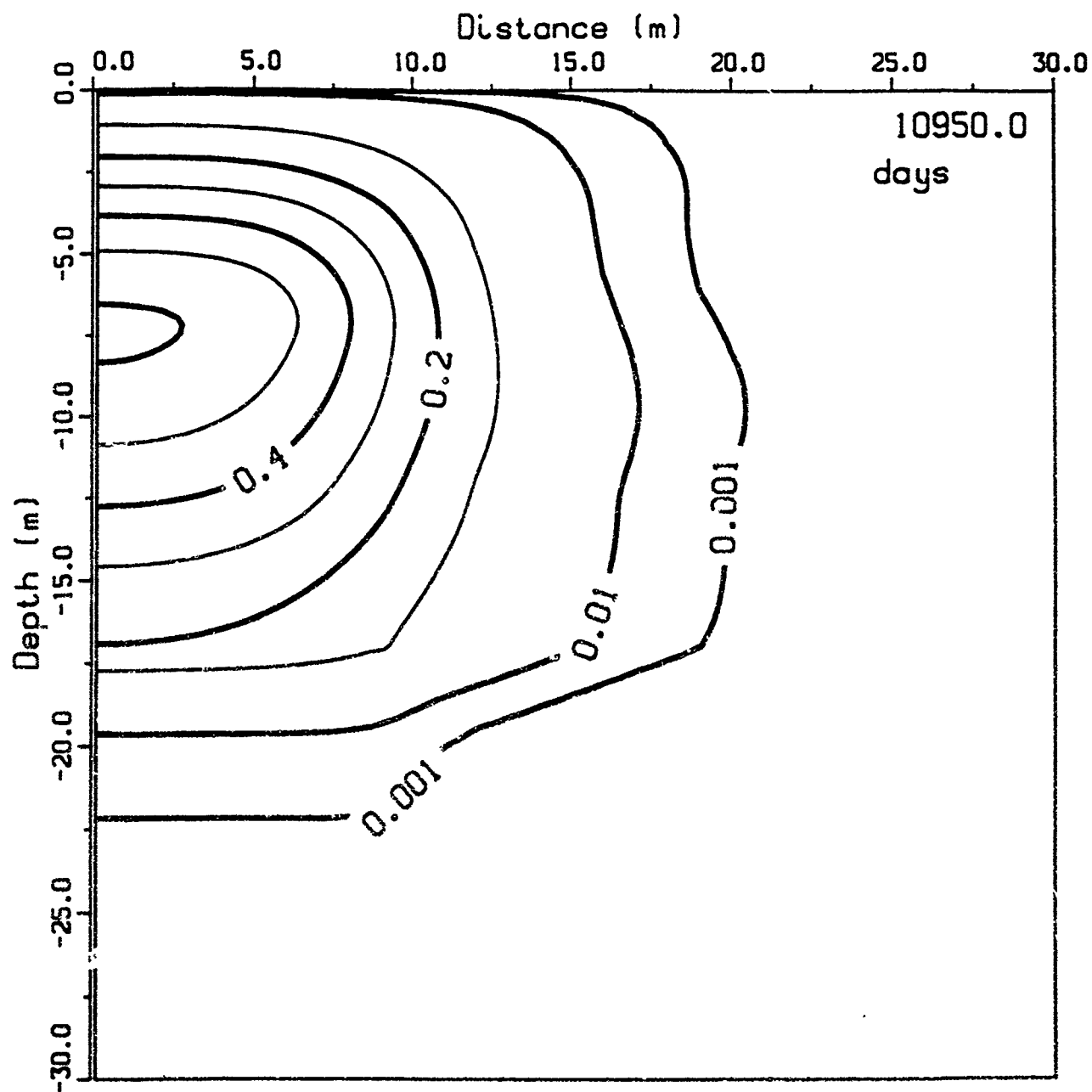


Deepest Isopleth Concentrations

$1.1 \times 10^{-8}$  grams/liter in soil gas  
 $1.3 \times 10^{-8}$  grams/liter in soil water  
 $4.5 \times 10^{-9}$  grams/liter on soil solids

FIGURE C-2. 1,1-DCE DISTRIBUTION AFTER 30 YEARS WITHOUT A SURFACE COVER, CROSS SECTION WITH MODEL RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

case1ic5pce30yr

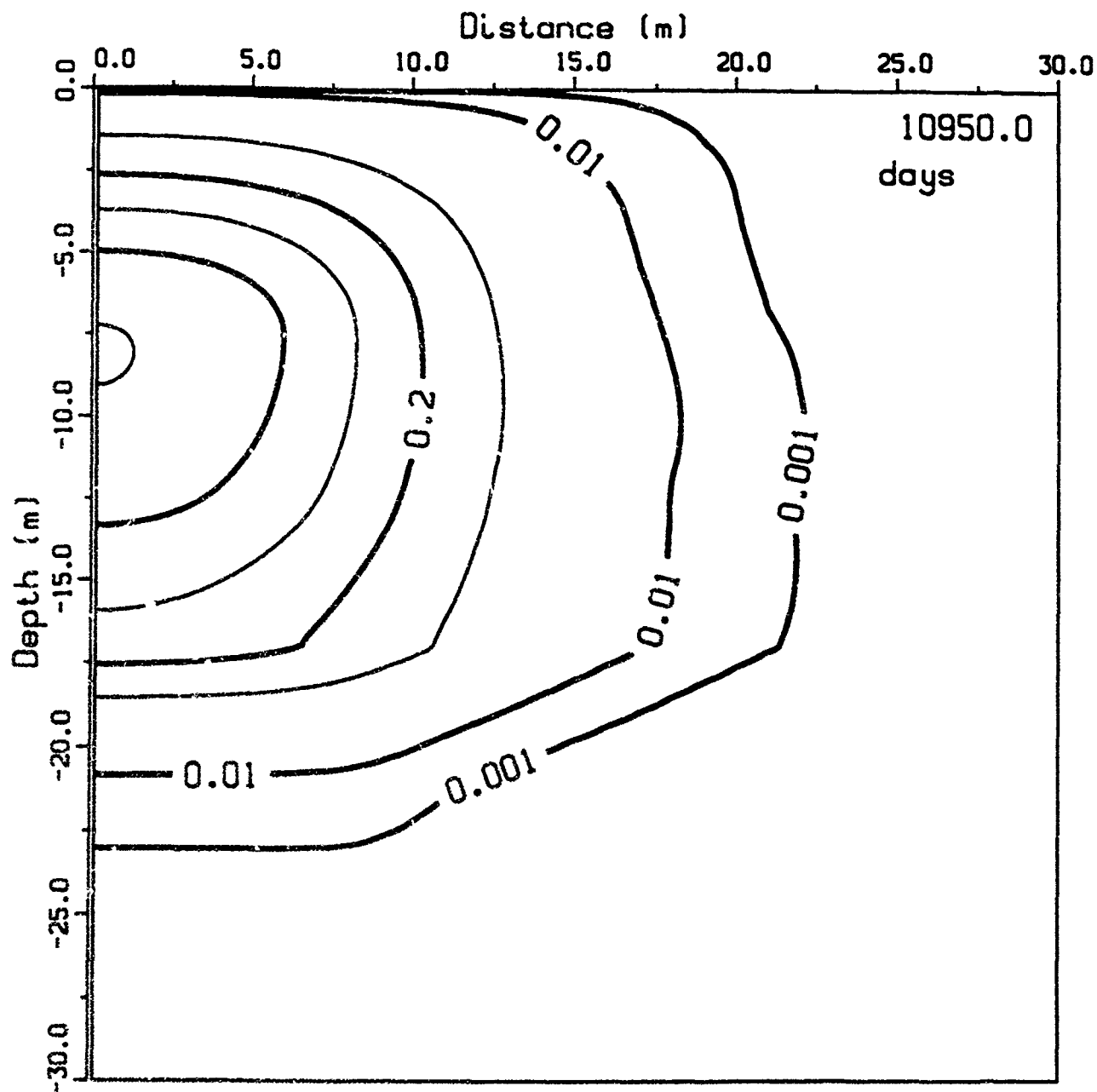


Deepest Isopleth Concentrations

$1.3 \times 10^{-7}$  grams/liter in soil gas  
 $2.3 \times 10^{-7}$  grams/liter in soil water  
 $4.4 \times 10^{-7}$  grams/liter on soil solids

FIGURE C-3. PCE DISTRIBUTION AFTER 30 YEARS WITHOUT  
 A SURFACE COVER, CROSS SECTION WITH MODEL  
 RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

case1ic5tce30yr

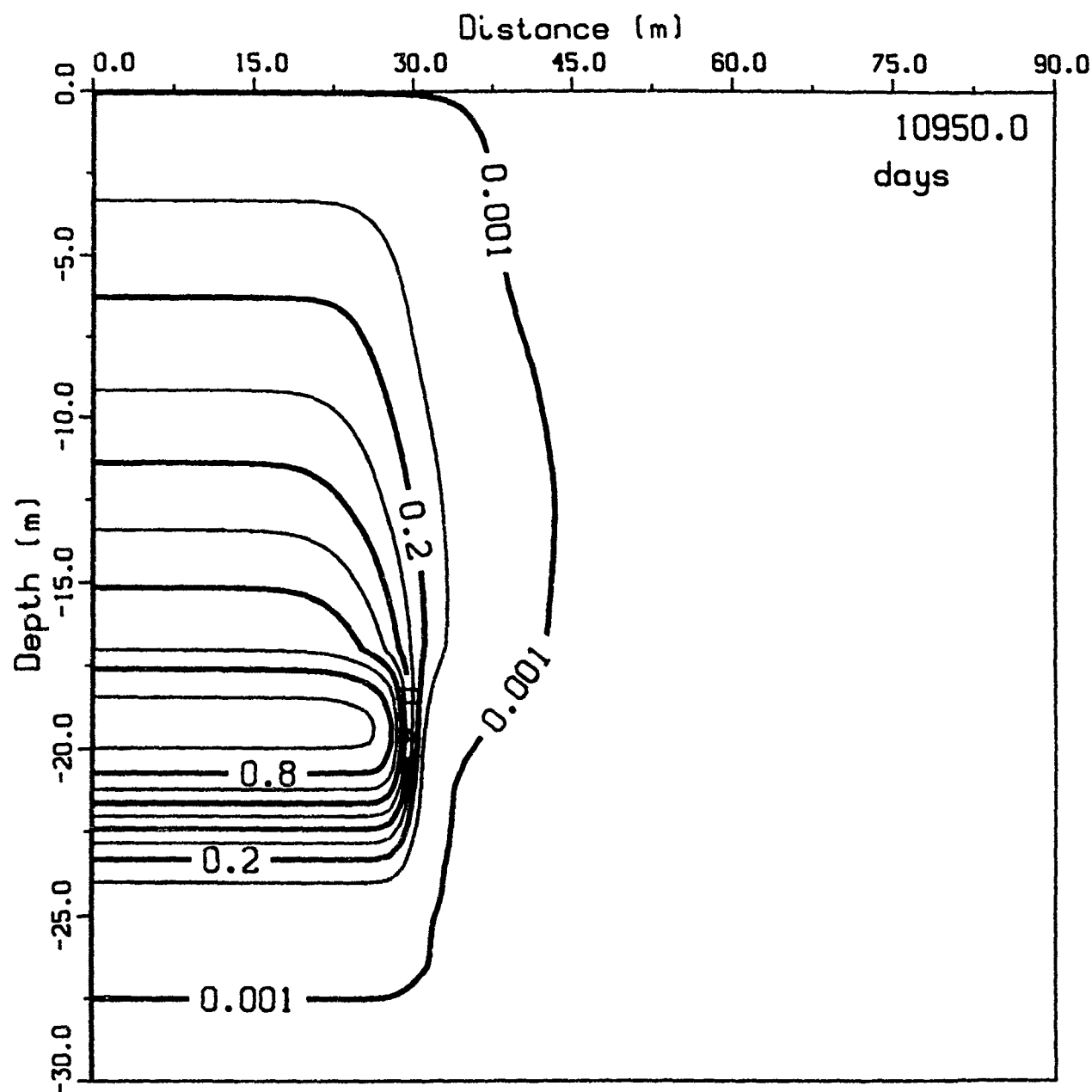


Deepest Isopleth Concentrations

$2.4 \times 10^{-7}$  grams/liter in soil gas  
 $8.0 \times 10^{-7}$  grams/liter in soil water  
 $5.3 \times 10^{-4}$  grams/liter on soil solids

FIGURE C-4. TCE DISTRIBUTION AFTER 30 YEARS WITHOUT A SURFACE COVER, CROSS SECTION WITH MODEL RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

ic5-50yrbenz30yr



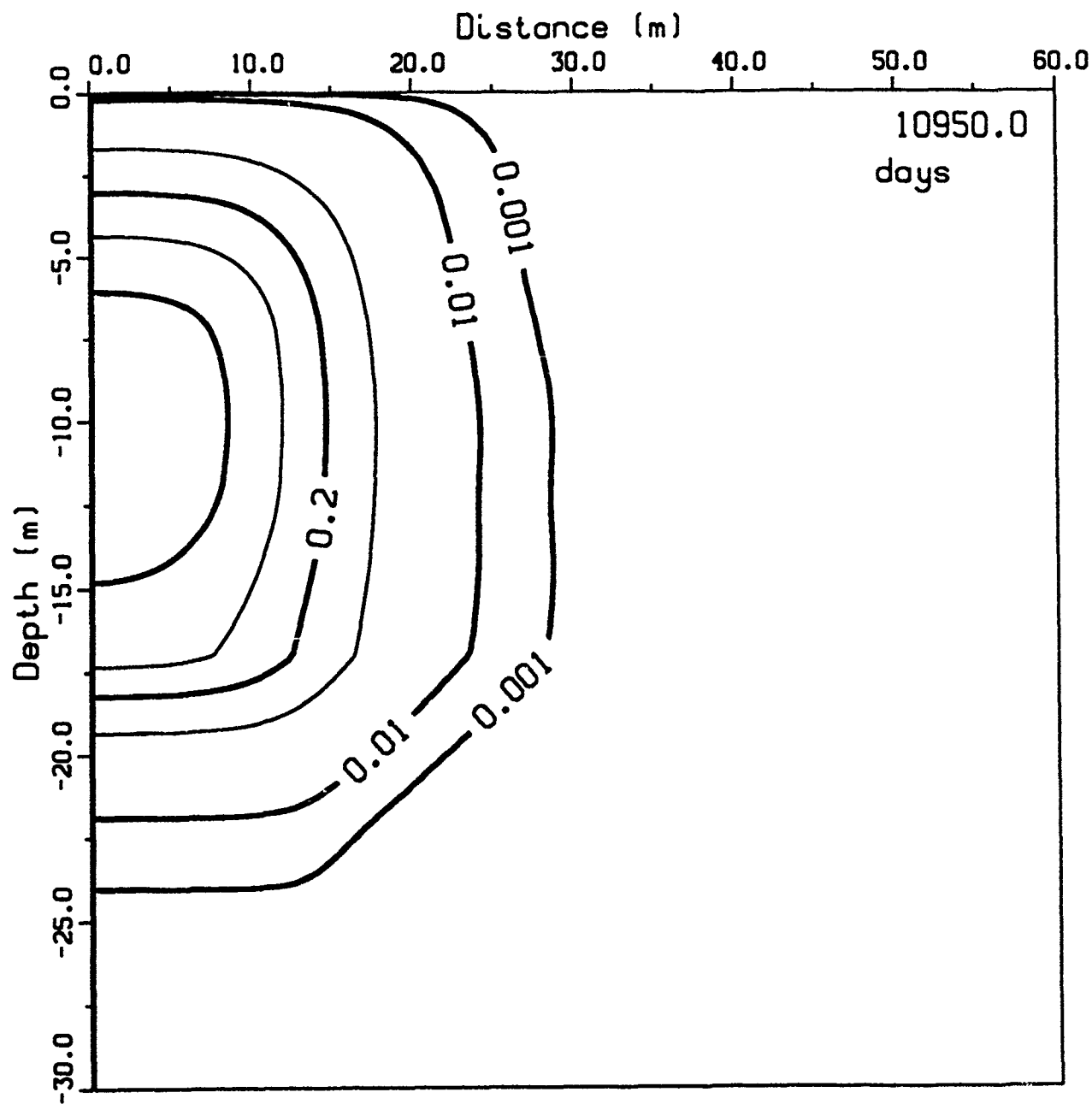
Deepest Isopleth Concentrations

$4.79 \times 10^{-7}$  grams/liter in soil gas  
 $3.19 \times 10^{-6}$  grams/liter in soil water  
 $2.25 \times 10^{-6}$  grams/liter on soil solids

FIGURE C-5. BENZENE DISTRIBUTION AFTER 30 YEARS WITHOUT A SURFACE COVER, CROSS SECTION WITH MODEL RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME



case1ic5cis12dce30yr

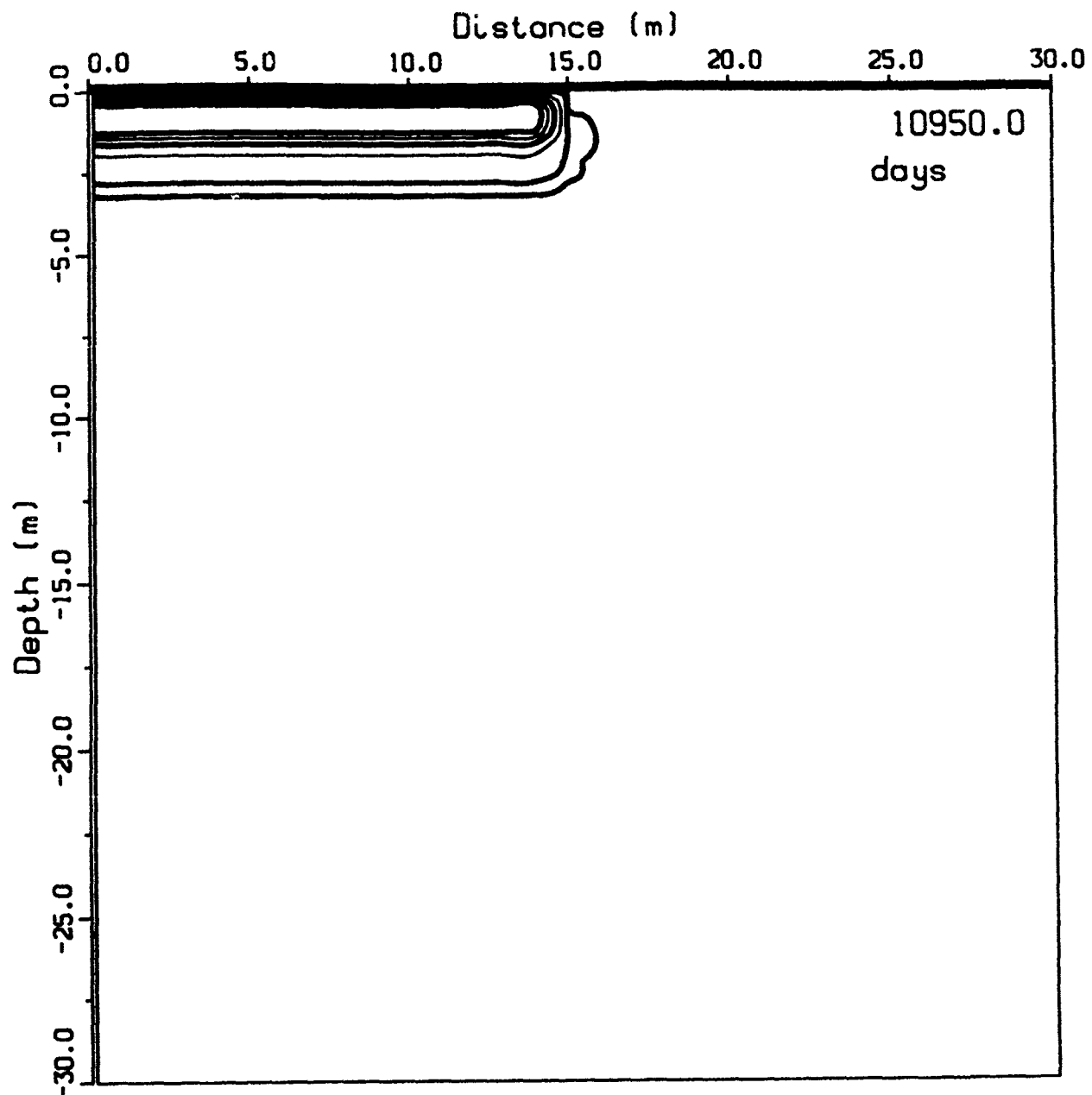


Deepest Isopleth Concentrations

$4.1 \times 10^{-8}$  grams/liter in soil gas  
 $2.6 \times 10^{-7}$  grams/liter in soil water  
 $1.0 \times 10^{-7}$  grams/liter on soil solids

FIGURE C-6. CIS-1,2-DCE DISTRIBUTION AFTER 30 YEARS WITHOUT  
 A SURFACE COVER, CROSS SECTION WITH MODEL  
 RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

ic5-50yrpcb30yr

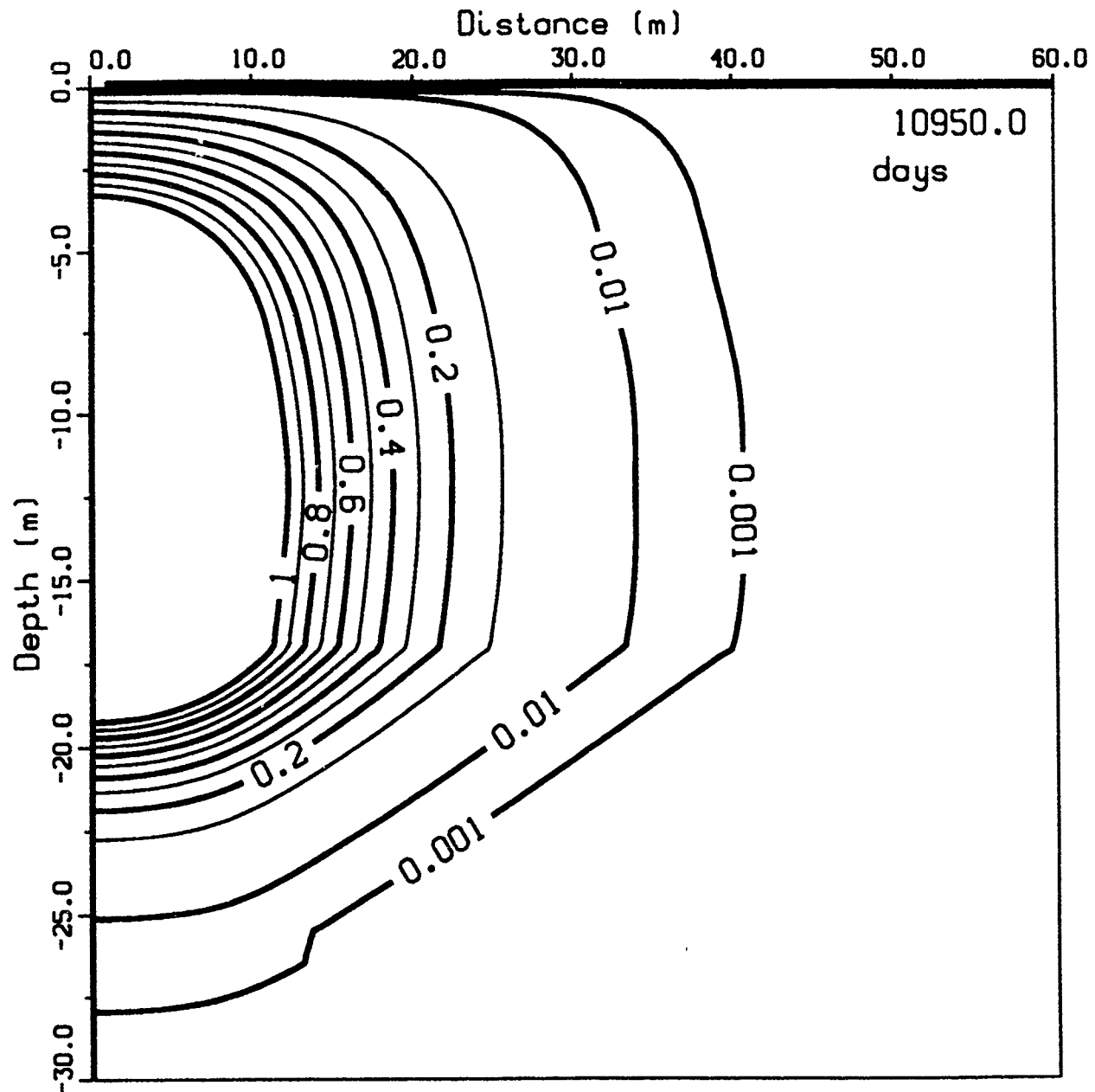


Deepest Isopleth Concentrations

$9.12 \times 10^{-7}$  grams/liter in soil gas  
 $5.07 \times 10^{-5}$  grams/liter in soil water  
 $1.01 \times 10^0$  grams/liter on soil solids

FIGURE C-7. AROCHLOR 1260 DISTRIBUTION AFTER 30 YEARS WITH  
 A SURFACE COVER, CROSS SECTION WITH MODEL  
 RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

lc5asp30yrdce30yr

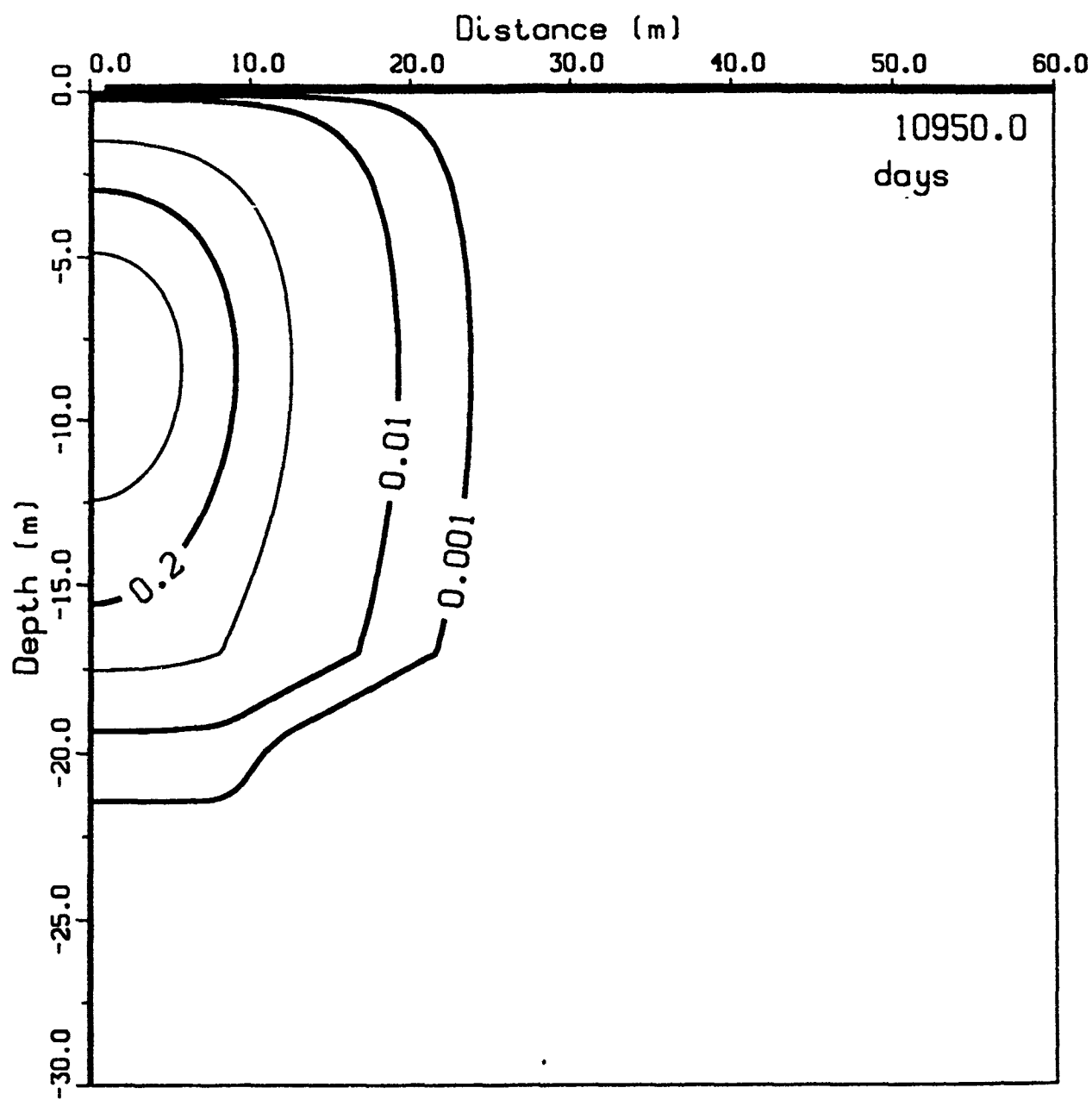


Deepest Isopleth Concentrations

$1.14 \times 10^{-5}$  grams/liter in soil gas  
 $1.33 \times 10^{-5}$  grams/liter in soil water  
 $1.73 \times 10^{-4}$  grams/liter on soil solids

FIGURE C-8. 1,1-DCE DISTRIBUTION AFTER 30 YEARS WITH A SURFACE COVER, CROSS SECTION WITH MODEL RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

ic5-50yrtce30yr

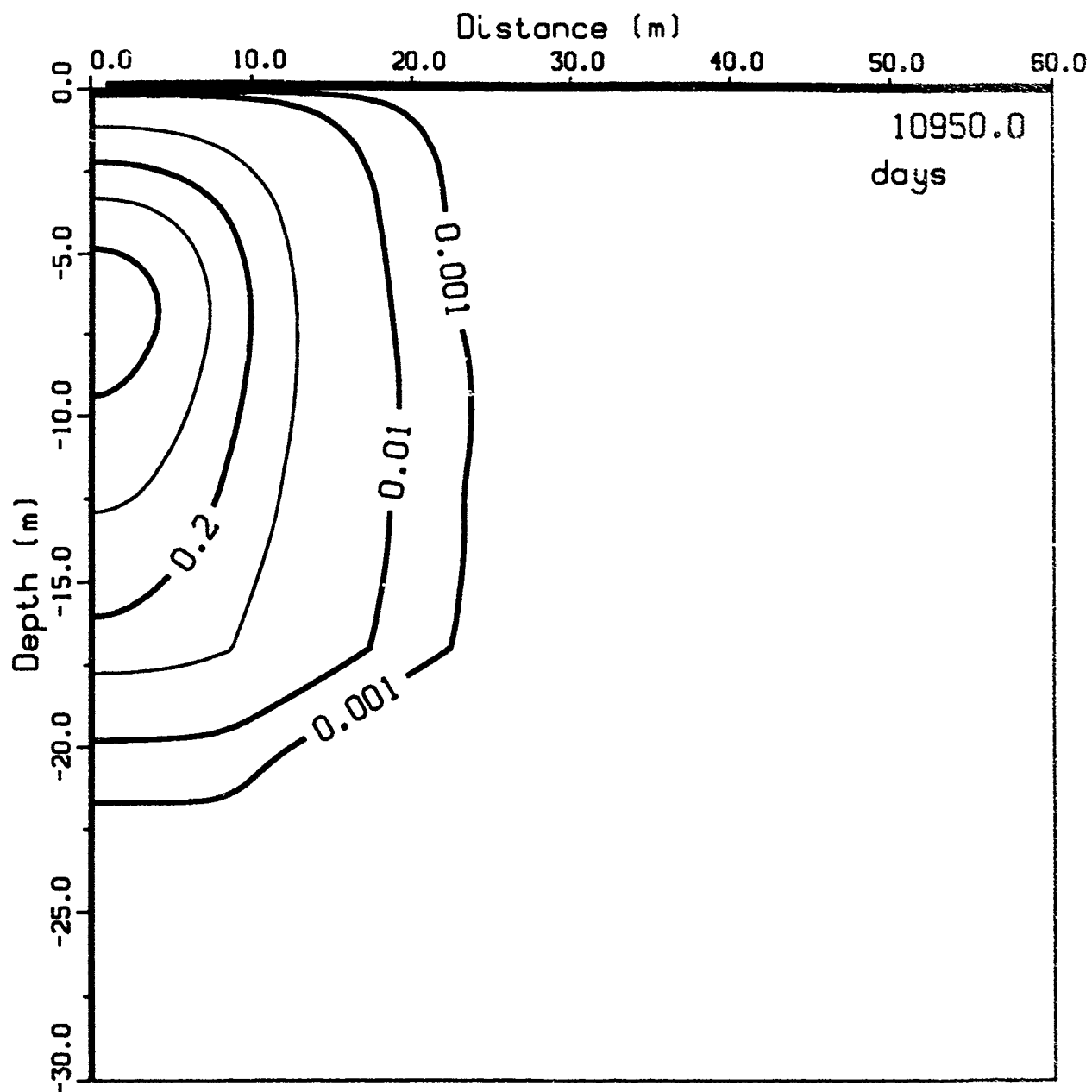


Deepest Isopleth Concentrations

$2.37 \times 10^{-4}$  grams/liter in soil gas  
 $7.98 \times 10^{-4}$  grams/liter in soil water  
 $2.01 \times 10^{-2}$  grams/liter on soil solids

FIGURE C-9. TCE DISTRIBUTION AFTER 30 YEARS WITH  
 A SURFACE COVER, CROSS SECTION WITH MODEL  
 RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

ic5asp30yrcis30yr



Deepest Isopleth Concentrations

$4.08 \times 10^{-5}$  grams/liter in soil gas  
 $2.63 \times 10^{-4}$  grams/liter in soil water  
 $3.81 \times 10^{-3}$  grams/liter on soil solids

FIGURE C-10. CIS-1,2-DCE DISTRIBUTION AFTER 30 YEARS WITH A SURFACE COVER, CROSS SECTION WITH MODEL RESULTS THROUGH ONE-HALF OF CONTAMINATED VOLUME

## APPENDIX D

### Health Risk Assessment Calculations

TABLE D-1. CHEMICALS SAMPLED IN SOIL GAS OU B1

Analyte	Frequency of Detection		Range of Sample Reporting Limits (ppbv)				Range of Reported Concentrations (ppbv)	
	# Hits	# Samples	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1,1-Dichloroethene	4	10	0.8500	100.0000	50.0000	9100.0000		
1,2,4-Trichlorobenzene	1	3	0.8500	4.0000	5.7000	5.7000		
1,2,4-Trimethylbenzene	2	3	0.8500	4.0000	1.9000	53.0000		
1,2-Dichlorobenzene	1	3	0.8500	4.0000	570.0000	570.0000		
1,3,5-Trimethylbenzene	1	3	0.8500	4.0000	17.0000	17.0000		
1,3-Dichlorobenzene	2	3	0.8500	4.0000	3.2000	11.0000		
1,4-Dichlorobenzene	1	3	0.8500	4.0000	85.0000	85.0000		
Acetone	3	3	0.8500	4.0000	9.3000	38.0000		
Benzene	2	30	0.8500	20.0000	2.4000	36.0000		
Carbon Tetrachloride	1	25	0.8500	83000.00	5.0000	5.0000		
Chlorobenzene	1	3	0.8500	4.0000	2.3000	2.3000		
Chloroform	1	31	0.8500	16600.00	2.1000	2.1000		
Cyclohexane	1	3	0.8500	4.0000	20.0000	20.0000		
Dichlorodifluoromethane	1	18	0.8500	30.0000	1.3000	1.3000		
Ethylbenzene	1	3	0.8500	4.0000	12.0000	12.0000		
Freon 113	10	28	0.8500	83000.00	23.0000	990.0000		
Tetrachloroethene	7	29	0.8500	16600.00	1.3000	30000.00		
Toluene	5	30	0.8500	20.0000	3.3000	51.0000		

(Continued)

TABLE D-1. (Continued)

Analyte	Frequency of Detection		Range of Sample Reporting Limits (ppbv)		Range of Reported Concentrations (ppbv)	
	# Hits	# Samples	Minimum	Maximum	Minimum	Maximum
Trichloroethene	12	31	0.8500	16600.00	9.1000	72000.00
Unknown	3	72	50.0000	83000.00	100.0000	6200.000
cis-1,2-Dichloroethene	5	31	0.8500	20.0000	17.0000	17000.00
m,p-Xylene	3	19	0.8500	40.0000	1.7000	47.0000
n-Octane	1	3	0.8500	4.0000	35.0000	35.0000
o-Xylene	2	29	0.8500	40.0000	19.0000	20.0000
p-Xylene	2	11	5.0000	10.0000	19.0000	20.0000
trans-1,2-Dichloroethene	1	28	5.0000	20.0000	22.0000	22.0000



TABLE D-2. CHEMICALS SAMPLED IN SOIL OPERABLE UNIT B-1

Analyte	Frequency of Detection		Range of Sample Reporting Limits		Range of Detected Concentrations		Background/Threshold Concentration	Units
	# Hits	# Samples	Minimum	Maximum	Minimum	Maximum		
TPH-E	42	77	10.0000	1200.000	12.0000	8700.000	NA	mg/kg
PCB-1260	1836	2399	0.0100	33000.00	0.0170	240000.0	NA	mg/kg
Benzene	4	178	0.0020	0.0067	0.0021	0.0029	NA	mg/kg
Tetrachloroethene	1	178	0.0020	0.0027	0.016	0.016	NA	mg/kg
Toluene	2	178	0.0050	0.0067	0.0052	0.0056	NA	mg/kg
Trichloroethene	18	178	0.0020	0.0027	0.0020	0.0120	NA	mg/kg
cis-1,2-Dichloroethene	2	178	0.0020	0.0027	0.0034	0.0035	NA	mg/kg
m,p-Xylene	3	136	0.0030	0.0030	0.0032	0.0042	NA	mg/kg
o-Xylene	2	178	0.0020	0.0067	0.0020	0.0026	NA	mg/kg
Aluminum	74	74	3.0000	13.0000	5300.000	49000.00	23596.0	mg/kg
Antimony	43	74	2.4000	10.0000	3.0000	40.0000	20.0	mg/kg
Arsenic	65	128	0.3000	17.0000	1.4000	47.0000	3.7	mg/kg
Barium	74	74	0.2700	1.2000	53.0000	1700.000	342.0	mg/kg
Beryllium	73	74	0.0680	0.2900	0.1100	0.7900	0.6	mg/kg
Cadmium	61	74	0.2700	1.2000	0.4000	49.0000	0.4	mg/kg
Calcium	74	74	68.0000	290.0000	1100.000	41000.00	6082.0	mg/kg
Chromium	74	74	0.4700	2.1000	13.0000	590.0000	41.5	mg/kg
Cobalt	73	74	0.4700	2.1000	5.4000	41.0000	15.0	mg/kg
Copper	74	74	0.4100	1.9000	6.9000	410.0000	26.7	mg/kg
Iron	74	74	3.4000	18.0000	7400.000	97000.00	34759.0	mg/kg

(Continued)

TABLE D-2. (Continued)

Analyte	Frequency of Detection		Range of Sample Reporting Limits		Range of Detected Concentrations		Background/Threshold Concentration	Units
	# Hits	# Samples	Minimum	Maximum	Minimum	Maximum		
Lead	124	128	0.2300	200.0000	3.3000	2500.000	6.8	mg/kg
Magnesium	74	74	2.0000	8.8000	810.0000	23000.00	8954.0	mg/kg
Manganese	74	74	0.1400	0.5900	140.0000	1000.000	1355.0	mg/kg
Mercury	31	54	0.0370	0.1300	0.0470	7.5000	0.2	mg/kg
Molybdenum	52	74	0.5400	2.8000	0.7000	20.0000	4.0	mg/kg
Nickel	74	74	1.4000	5.9000	7.8000	160.0000	52.2	mg/kg
Potassium	74	74	68.0000	330.0000	300.0000	5800.000	2697.0	mg/kg
Selenium	83	128	0.3400	22.0000	0.4500	52.0000	0.5	mg/kg
Silver	54*	74	0.4700	2.1000	0.8000	74.0000	0.2	mg/kg
Sodium	70	74	68.0000	290.0000	91.0000	1300.000	727	mg/kg
Thallium	23	74	3.4000	15.0000	3.9000	34.0000	0	mg/kg
Vanadium	74	74	0.5400	2.5000	26.0000	180.0000	75.7	mg/kg
Zinc	74	74	0.3400	1.6000	10.0000	1100.000	58.6	mg/kg
Methylene Chloride	6	12	0.0055	0.0071	0.0068	0.0180	NA	mg/kg
1,2,4-Trichlorobenzene	3	82	0.2000	23.0000	1.1000	69.0000	NA	mg/kg
Benzo(a)anthracene	1	82	0.2000	23.0000	0.6800	0.6800	NA	mg/kg
Benzo(a)pyrene	1	82	0.2000	23.0000	0.6700	0.6700	NA	mg/kg
Benzo(b)fluoranthene	2	82	0.2000	23.0000	2.0000	2.5000	NA	mg/kg
Benzo(k)fluoranthene	2	82	0.2000	23.0000	2.0000	2.5000	NA	mg/kg
Bis(2-ethylhexyl)phthalate	27	82	0.3400	23.0000	0.4200	5.9000	NA	mg/kg

(Continued)

TABLE D-2. (Continued)

Analyte	Frequency of Detection		Range of Sample Reporting Limits		Range of Detected Concentrations		Background/Threshold Concentration	Units
	# Hits	# Samples	Minimum	Maximum	Minimum	Maximum		
Butylbenzylphthalate	3	82	0.2000	23.0000	0.7400	3.2000	NA	mg/kg
Chrysene	2	82	0.2000	23.0000	0.4900	0.9600	NA	mg/kg
Dimethyl Phthalate	1	82	0.3400	23.0000	1.2000	1.2000	NA	mg/kg
Fluoranthene	2	82	0.2000	23.0000	0.7500	1.1000	NA	mg/kg
Pyrene	2	82	0.3400	23.0000	0.6400	1.7000	NA	mg/kg
di-n-Butylphthalate	1	82	0.3400	23.0000	0.5700	0.5700	NA	mg/kg
di-n-Octyl Phthalate	1	82	0.2000	23.0000	0.4500	0.4500	NA	mg/kg
1,2,3,4,6,7,8-HpCDD	28	48	0.0057	2.4000	0.0650	1.9600	NA	µg/kg
1,2,3,4,6,7,8-HpCDF	18	48	0.004	1.5000	0.0261	4.1200	NA	µg/kg
1,2,3,4,7,8,9-HpCDF	5	48	0.0051	2.2000	0.0277	0.8020	NA	µg/kg
1,2,3,4,7,8-HxCDF	16	48	0.0031	2.0000	0.0422	7.8600	NA	µg/kg
1,2,3,6,7,8-HxCDD	1	48	0.0042	2.3000	0.0477	0.0477	NA	µg/kg
1,2,3,6,7,8-HxCDF	10	48	0.0011	1.4000	0.0236	0.9750	NA	µg/kg
1,2,3,7,8,9-HxCDD	1	48	0.0039	1.8000	0.0306	0.0306	NA	µg/kg
1,2,3,7,8,9-HxCDF	2	48	0.037	1.5000	0.2800	0.4370	NA	µg/kg
1,2,3,7,8-PCDF	9	48	0.0026	1.3000	0.0203	0.6480	NA	µg/kg
2,3,4,6,7,8-HxCDF	11	48	0.0033	1.4000	0.0249	1.2000	NA	µg/kg
2,3,4,7,8-PCDF	14	48	0.0029	0.8800	0.0192	3.0000	NA	µg/kg
2,3,7,8-TCDD	7	58	0.0030	2.0000	0.0146	1.0000	NA	µg/kg
2,3,7,8-TCDF	18	48	0.002	0.8900	0.0125	3.8100	NA	µg/kg

(Continued)

TABLE D-2. (Continued)

Analyte	Frequency of Detection		Range of Sample Reporting Limits		Range of Detected Concentrations		Background/Threshold Concentration	Units
	# Hits	# Samples	Minimum	Maximum	Minimum	Maximum		
Heptachlorodibenzodioxin	22	29	0.0057	6.0000	0.0747	3.3800	NA	µg/kg
Hexachlorodibenzodioxin	9	29	0.0043	3.6000	0.0278	1.8000	NA	µg/kg
HxCDF	24	29	0.0051	3.3000	0.0306	7.8100	NA	µg/kg
HxCDF	24	29	0.0037	2.3000	0.0363	20.9000	NA	µg/kg
OCDF	34	58	0.0064	5.5000	0.0777	6.2300	NA	µg/kg
Octachlorodibenzodioxin	46	58	0.0094	10.0000	0.3200	10.9000	NA	µg/kg
PeCDD	5	29	0.0049	2.9000	0.0784	1.4500	NA	µg/kg
PeCDF	23	29	0.0029	1.8000	0.0327	19.1000	NA	µg/kg
TCDD	7	29	0.003	2.0000	0.0146	1.0000	NA	µg/kg
Tetrachlorodibenzofuran	24	29	0.002	1.4000	0.0125	17.8000	NA	µg/kg
Total Cyanide	22	54	0.2500	0.9100	0.2900	5.5000	NA	mg/kg

NA = Not applicable

TABLE D-3. COMPARISON OF MAXIMUM REPORTED CONCENTRATIONS  
OF ORGANIC COMPOUNDS WITH LEVELS OF CONCERN

Chemical	Maximum Reported Concentration	Level of Concern	Exceedance Factor
<b>Semivolatile Organic Compounds in Soil (mg/kg)</b>			
1,2,4-Trichlorobenzene	69	410	<1
Benzo(a)anthracene	0.7	0.21	3.3
Benzo(a)pyrene	0.7	0.21	3.3
Benzo(b)fluoranthene	2.5	0.21	12
Benzo(k)fluoranthene	2.5	0.21	12
bis(2-Ethylhexyl)phthalate*	5.9	39	<1
Butylbenzylphthalate*	3.2	NC	<1
Chrysene	1.0	1,600	<1
Dimethyl phthalate*	1.2	NC	<1
Fluoranthene	1.1	1,600	<1
Pyrene	1.7	1,600	<1
di-n-Butylphthalate*	0.6	227	<1
di-n-Octylphthalate*	0.5	227	<1
PCB 1260	240,000	0.052	$4.6 \times 10^6$
TCDD <sub>eq</sub>	0.003	$8 \times 10^{-6}$	375
<b>Volatile Organic Compounds in Soil Vapor (ppbv)</b>			
Benzene	36	5.6	6.4
Acetone	38	19,000	<1
1,4-Dichlorobenzene	85	20,000	<1
1,3-Dichlorobenzene	11	5,900	<1
1,3,5-Trimethylbenzene	17	10,000	<1
1,2-Dichlorobenzene	570	5,900	<1
1,2,4-Trimethylbenzene	53	10,000	<1
1,2,4-Trichlorobenzene	5.7	10,000	<1
1,1-Dichloroethene	9,100	0.8	11,400
Carbon Tetrachloride	5	1.6	3
Chlorobenzene	2.3	720	<1
Chloroform	2.1	1.2	1.8
Cyclohexane	20	9,400	<1
Freon® 12	1.3	5,600	<1
Ethylbenzene	12	40,000	<1
Freon® 113	990	580,000	<1
Tetrachloroethane	30,000	25	1,200
Toluene	51	84,000	<1
Trichloroethene	72,000	17	4,240
cis-1,2-Dichloroethene	17,000	27,000	<1
m,p-Xylene	47	11,000	<1
n-Octane	35	NC	NC
o-Xylene	20	11,000	<1
p-Xylene	20	11,000	<1
trans-1,2-Dichloroethene	22	27,000	<1

\* Probable laboratory contaminant.

NC = Not calculated.

Table D-4. CCC CONCENTRATIONS IN SOIL

	Site-wide Values		On-Site Hypothetical Residential Area(b)		Current Off-site Residential Area			
	95UCL(a) (mg/kg)	Mean (mg/kg)	95UCL(a) (mg/kg)	Average (mg/kg)	Garden Soil(d)		Surface Soil(e)	
					95UCL(a) (mg/kg)	Average (mg/kg)	95UCL(a) (mg/kg)	Average (mg/kg)
Arsenic	9.24E+00	7.75E+00	1.300E+01	8.400E+00	3.337E-02	3.051E-02	5.455E-01	4.576E-01
Cadmium	1.98E+01	9.07E+00	6.000E+00	5.667E+00	7.786E-02	3.572E-02	1.168E+00	5.357E-01
Chromium	1.11E+02	8.89E+01	1.600E+02	9.433E+01	4.859E-04	3.898E-04	7.289E-03	5.848E-03
Copper	6.41E+01	5.05E+01	9.200E+01	6.033E+01	2.523E-01	1.987E-01	3.785E+00	2.981E+00
Lead	9.07E+02	4.01E+02	1.400E+03	7.567E+02	3.570E+00	1.579E+00	5.356E+01	2.369E+01
Mercury	2.60E-01	1.47E-01	3.500E-01	3.000E-01	1.024E-03	5.788E-04	1.536E-02	8.683E-03
Molybdenum	3.01E+00	2.13E+00	3.300E+00	2.267E+00	1.186E-02	8.372E-03	1.780E-01	1.256E-01
PCB	2.89E+01	2.89E+01 (c)	1.000E+05	2.208E+04	1.137E-01	1.137E-01	1.705E+00	1.705E+00
Selenium	1.13E+01	5.63E+00	1.100E+01	1.020E+01	4.435E-02	2.218E-02	6.652E-01	3.327E-01
Silver	6.49E+00	4.45E+00	4.100E+00	2.433E+00	2.555E-02	1.750E-02	2.832E-01	2.625E-01
TCDDeq	2.90E-03	2.37E-04	3.000E-03 (g)	3.000E-03 (g)	1.151E-05	9.332E-07	1.727E-04	1.400E-05
Zinc	2.46E+02	1.79E+02	3.600E+02	2.120E+02	9.682E-01	7.033E-01	1.452E+01	1.055E+01

mg/kg = milligrams per kilogram

PCB = Polychlorinated biphenyls

TCDD<sub>eq</sub> = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxic equivalents

95UCL = 95% upper confidence limit of the arithmetic mean

a- Minimum of 95UCL and maximum concentration

b- One-eighth acre area with highest reported PCB concentrations

c- 95UCL

d- 15 centimeter mixing depth

e- 1 centimeter mixing depth

g- No Dioxin/Furan results from this area, maximum on-site value was used

TABLE D-5. COC CONCENTRATIONS IN SEDIMENTS AND SURFACE WATER

Chemical	Sediment <sup>a</sup> Concentration (mg/kg)	Surface Water <sup>a</sup> Concentration (mg/L)
PCBs	470	$1.9 \times 10^{-1}$
TCDDeq	$3.7 \times 10^{-5}$	$8.29 \times 10^{-7}$

<sup>a</sup> Values are the maximum onsite values.

TABLE D-6. SOIL GAS AND PARTICULATE SURFACE FLUXES

Chemical	Surface Flux ( $\mu\text{g}/\text{m}^2\text{-SEC}$ )
PCBs (uncapped)	$8.5 \times 10^{-4}$
PCB (capped)	$8.2 \times 10^{-5}$
PM <sub>10</sub>	5.1
1,1-DCE	$1.8 \times 10^{-6}$
TCE	$4.1 \times 10^{-5}$
PCE	$2.6 \times 10^{-5}$
Benzene	$2.5 \times 10^{-7}$

1,1-DCE = 1,1-Dichloroethene  
 PCB = Polychlorinated biphenyl  
 PCE = Tetrachloroethene  
 PM<sub>10</sub> = Particulate matter smaller than 10 microns  
 TCE = Trichloroethylene  
 $\mu\text{g}/\text{m}^2\text{-SEC}$  = Micrograms per square meter per second



Table D-7. COC EXPOSURE CONCENTRATIONS IN AMBIENT AIR

	COC Exposure Concentrations in Ambient Air (ug/m3)(a)					
	Current Worker		Current Off-site		Hypothetical On-Site	
	Scenario	Average	RME	Residential Scenario	Average and RME	Visitor Scenario
PCB		1.53E-02	1.53E-02	6.96E-03	6.96E-03	1.22E-02
TCDDeq		1.85E-08	2.29E-07	8.46E-09	1.04E-07	1.44E-08
Arsenic		6.06E-04	7.22E-04	2.77E-04	3.30E-04	6.68E-04
Chromium VI		7.72E-06	9.65E-06	3.53E-06	4.41E-06	8.92E-06
Cadmium		7.09E-04	1.55E-03	3.24E-04	7.06E-04	1.43E-03
Benzene		6.01E-08	6.00E-08	NE	NE	2.07E-08
1,1-DCE		8.22E-07	8.20E-07	NE	NE	1.80E-07
PCE		6.30E-06	6.30E-06	NE	NE	2.14E-06
TCE		1.00E-05	1.00E-05	NE	NE	3.40E-06
Chromium		6.96E-03	8.69E-03	3.18E-03	3.97E-03	8.04E-03
Copper		3.95E-04	5.01E-03	1.80E-03	2.29E-03	4.63E-03
Mercury		1.15E-05	2.03E-05	5.25E-06	9.28E-06	1.88E-05
Molybdenum		1.66E-04	2.36E-04	7.59E-05	1.08E-04	2.18E-04
Selenium		4.41E-04	8.81E-04	2.01E-04	4.02E-04	8.14E-04
Silver		3.48E-04	5.07E-04	1.59E-04	2.32E-04	4.69E-04
Zinc		1.40E-02	1.92E-02	6.38E-03	8.78E-03	1.78E-02

a-Includes vapor and particulate phase

NE = Not evaluated. On-site risks were insignificant.

Average = Average exposure case

RME = Reasonable maximum exposure case

TABLE D-8. ROOT UPTAKE FACTORS

Chemical	Root Uptake Factor
PCBs	$3.27 \times 10^{-2}$
TCDDeq	$1.46 \times 10^{-3}$
Arsenic	$1.26 \times 10^{-3}$
Chromium	$9.45 \times 10^{-4}$
Cadmium	$3.15 \times 10^{-2}$
Copper	$5.25 \times 10^{-2}$
Mercury	$4.2 \times 10^{-2}$
Molybdenum	$1.26 \times 10^{-2}$
Selenium	$5.25 \times 10^{-3}$
Silver	$2.1 \times 10^{-2}$
Zinc	$1.89 \times 10^{-1}$

PCBs = Polychlorinated biphenyls

TCDDeq = Tetrachlorodibenzodioxin equivalent

**TABLE D-9. DERMAL ABSORPTION FRACTIONS**

Chemical of Concern	Average Cases	RME Cases
Arsenic	0.0055	0.03
Cadmium	0.001	0.001
Chromium	0.0055	0.01
Copper	0.0055	0.01
Mercury	0.0055	0.01
Molybdenum	0.0055	0.01
PCBs	0.033	0.06
Selenium	0.0055	0.01
Silver	0.0055	0.01
TCDDeq	0.016	0.03
Zinc	0.0055	0.01

PCB = Polychlorinated biphenyl

TCDDeq = 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalents

TABLE D-10. CANCER POTENCY FACTORS

Chemical	Inhalation Value (mg/kg-day) <sup>-1</sup>	Oral Value (mg/kg-day) <sup>-1</sup>
PCBs	7.7 <sup>a</sup>	7.7 <sup>a</sup>
TCDDeq	1.5 x 10 <sup>5</sup> <sup>b</sup>	1.5 x 10 <sup>5</sup> <sup>b</sup>
Arsenic	1.5 x 10 <sup>1</sup> <sup>c</sup>	1.7 <sup>c</sup>
Chromium VI	5.1 x 10 <sup>2</sup> <sup>a</sup>	4.2 x 10 <sup>-1</sup> <sup>a</sup>
Cadmium	1.5 x 10 <sup>1</sup> <sup>a</sup>	NL <sup>a,c</sup>
1,1-DCE	1.75 x 10 <sup>-1</sup> <sup>c</sup>	NA
Benzene	1.0 x 10 <sup>-1</sup> <sup>a</sup>	NA
PCE	5.1 x 10 <sup>-2</sup> <sup>a</sup>	NA
TCE	1.0 x 10 <sup>-2</sup> <sup>a</sup>	NA

<sup>a</sup> California/EPA, 1992a.

<sup>b</sup> U.S. EPA (1990) (HEAST).

<sup>c</sup> IRIS on-line (U.S. EPA).

NA = Not applicable; no exposure by this route.

NL = Not listed.

TABLE D-11. REFERENCE DOSES

Chemical	Value (mg/kg-day)
Arsenic	$3 \times 10^{-4}$
Cadmium	$5 \times 10^{-4}$
Chromium III	$1 \times 10^0$
Chromium VI	$5 \times 10^{-3}$
Copper	$3.7 \times 10^{-2}$
Lead <sup>a</sup>	
Mercury	$3 \times 10^{-4}$
Molybdenum	$5 \times 10^{-3}$
Selenium	$5 \times 10^{-3}$
Silver	$5 \times 10^{-3}$
Zinc	$3 \times 10^{-1}$
PCE	$1 \times 10^{-2}$
1,1-DCE	$9 \times 10^{-3}$

<sup>a</sup> Evaluated by using blood lead spreadsheet (LEADSPREAD) provided by Cal/EPA (1992).

SOURCE: IRIS on-line (U.S. EPA, 1993)

TABLE D-12. CALCULATED CANCER RISKS, CURRENT WORKER SCENARIO

Chemical	Dermal Absorption Pathway	Soil Ingestion Pathway	Inhalation Pathway	Total Risk
<b>Average Case</b>				
PCBs	$1.4 \times 10^{-6}$	$1.4 \times 10^{-5}$	$1.5 \times 10^{-6}$	$1.7 \times 10^{-5}$
TCDDeq	$1.1 \times 10^{-7}$	$2.2 \times 10^{-6}$	$3.5 \times 10^{-8}$	$2.4 \times 10^{-6}$
Arsenic	$1.4 \times 10^{-8}$	$8.3 \times 10^{-7}$	$1.2 \times 10^{-7}$	$9.6 \times 10^{-7}$
Chromium VI	$4.4 \times 10^{-11}$	$2.6 \times 10^{-9}$	$5.0 \times 10^{-8}$	$5.2 \times 10^{-8}$
Cadmium	0	0	$1.3 \times 10^{-7}$	$1.3 \times 10^{-7}$
Benzene	0	0	$7.6 \times 10^{-14}$	$7.6 \times 10^{-14}$
1,1-DCE	0	0	$1.8 \times 10^{-12}$	$1.8 \times 10^{-12}$
PCE	0	0	$4.0 \times 10^{-12}$	$4.1 \times 10^{-12}$
TCE	0	0	$1.3 \times 10^{-12}$	$1.3 \times 10^{-12}$
<b>Total</b>	<b><math>1.6 \times 10^{-6}</math></b>	<b><math>1.7 \times 10^{-5}</math></b>	<b><math>1.8 \times 10^{-6}</math></b>	<b><math>2.0 \times 10^{-5}</math></b>
<b>RME Case</b>				
PCBs	$6.4 \times 10^{-5}$	$7.8 \times 10^{-5}$	$8.2 \times 10^{-6}$	$1.5 \times 10^{-4}$
TCDDeq	$6.3 \times 10^{-5}$	$1.5 \times 10^{-4}$	$2.4 \times 10^{-6}$	$2.2 \times 10^{-4}$
Arsenic	$2.3 \times 10^{-6}$	$5.5 \times 10^{-6}$	$7.6 \times 10^{-7}$	$8.5 \times 10^{-6}$
Chromium VI	$2.5 \times 10^{-9}$	$1.8 \times 10^{-8}$	$3.4 \times 10^{-7}$	$3.7 \times 10^{-7}$
Cadmium	0	0	$1.6 \times 10^{-6}$	$1.6 \times 10^{-6}$
Benzene	0	0	$4.2 \times 10^{-13}$	$4.2 \times 10^{-13}$
1,1-DCE	0	0	$1.0 \times 10^{-11}$	$1.0 \times 10^{-11}$
PCE	0	0	$2.2 \times 10^{-11}$	$2.2 \times 10^{-11}$
TCE	0	0	$7.0 \times 10^{-12}$	$7.0 \times 10^{-12}$
<b>Total</b>	<b><math>1.3 \times 10^{-4}</math></b>	<b><math>2.4 \times 10^{-4}</math></b>	<b><math>1.3 \times 10^{-5}</math></b>	<b><math>3.8 \times 10^{-4}</math></b>

TABLE D-13. CALCULATED CANCER RISKS, CURRENT OFF-SITE RESIDENTIAL SCENARIO: AVERAGE AND RME CASES\*

Chemical	Soil Dermal Absorption Pathway	Soil Ingestion Pathway	Homegrown Garden Ingestion Pathway	Inhalation Pathway	Total Risk
<b>Average Case</b>					
PCBs	$7.6 \times 10^{-7}$	$2.3 \times 10^{-6}$	$6.5 \times 10^{-6}$	$1.9 \times 10^{-6}$	$1.1 \times 10^{-5}$
TCDDeq	$5.9 \times 10^{-8}$	$3.7 \times 10^{-7}$	$4.6 \times 10^{-8}$	$4.5 \times 10^{-8}$	$5.2 \times 10^{-7}$
Arsenic	$7.5 \times 10^{-9}$	$1.4 \times 10^{-7}$	$1.5 \times 10^{-8}$	$1.5 \times 10^{-7}$	$3.1 \times 10^{-7}$
Chromium VI	$2.4 \times 10^{-11}$	$4.3 \times 10^{-10}$	$3.5 \times 10^{-11}$	$6.4 \times 10^{-8}$	$6.4 \times 10^{-8}$
Cadmium	0	0	0	$1.71 \times 10^{-7}$	$1.71 \times 10^{-7}$
Benzene	0	0	0	0	0
1,1-DCE	0	0	0	0	0
PCE	0	0	0	0	0
TCE	0	0	0	0	0
<b>Total</b>	$8.3 \times 10^{-7}$	$2.8 \times 10^{-6}$	$6.5 \times 10^{-6}$	$2.3 \times 10^{-6}$	$1.25 \times 10^{-5}$
<b>RME Case</b>					
PCBs	$2.8 \times 10^{-5}$	$8.0 \times 10^{-6}$	$2.2 \times 10^{-5}$	$6.1 \times 10^{-6}$	$6.4 \times 10^{-5}$
TCDDeq	$2.8 \times 10^{-5}$	$1.6 \times 10^{-5}$	$1.9 \times 10^{-6}$	$1.9 \times 10^{-6}$	$4.7 \times 10^{-5}$
Arsenic	$9.9 \times 10^{-7}$	$5.7 \times 10^{-7}$	$5.9 \times 10^{-8}$	$6.1 \times 10^{-7}$	$2.2 \times 10^{-6}$
Chromium VI	$1.1 \times 10^{-9}$	$1.9 \times 10^{-9}$	$1.5 \times 10^{-10}$	$2.8 \times 10^{-7}$	$2.8 \times 10^{-7}$
Cadmium	0	0	0	$1.3 \times 10^{-6}$	$1.3 \times 10^{-6}$
Benzene	0	0	0	0	0
1,1-DCE	0	0	0	0	0
PCE	0	0	0	0	0
TCE	0	0	0	0	0
<b>Total</b>	$5.7 \times 10^{-5}$	$2.5 \times 10^{-5}$	$2.4 \times 10^{-5}$	$1.1 \times 10^{-5}$	$1.2 \times 10^{-4}$

\* The sediment and surface water dermal absorption, and sediment ingestion pathways had cancer risks of zero.

TABLE D-14. CALCULATED CANCER RISKS, HYPOTHETICAL ON-SITE RESIDENTIAL SCENARIO: AVERAGE AND RME CASES

Chemical	Soil Dermal Absorption		Sediment Dermal Absorption		Soil Ingestion		Sediment Ingestion		Surface Water Dermal Absorption		Homegrown Garden Ingestion		Inhalation		Total Risk
	Pathway		Pathway		Pathway		Pathway		Pathway		Pathway		Pathway		
Average Case															
PCBs	9.9 x 10 <sup>-3</sup>		1.7 x 10 <sup>-6</sup>		3.0 x 10 <sup>-2</sup>		1.3 x 10 <sup>-5</sup>		2.1 x 10 <sup>-6</sup>		1.3 x 10 <sup>0</sup>		4.3 x 10 <sup>-6</sup>		1.3 x 10 <sup>0</sup>
TCDDeq	1.3 x 10 <sup>-5</sup>		1.3 x 10 <sup>-9</sup>		7.9 x 10 <sup>-5</sup>		2.0 x 10 <sup>-8</sup>		1.8 x 10 <sup>-7</sup>		1.5 x 10 <sup>-4</sup>		0		2.4 x 10 <sup>-4</sup>
Arsenic	1.4 x 10 <sup>-7</sup>		0		2.5 x 10 <sup>-6</sup>		0		0		4.1 x 10 <sup>-6</sup>		0		6.7 x 10 <sup>-6</sup>
Chromium VI	4.3 x 10 <sup>-10</sup>		0		7.8 x 10 <sup>-9</sup>		0		0		9.4 x 10 <sup>-9</sup>		0		1.8 x 10 <sup>-8</sup>
Cadmium	0		0		0		0		0		0		0		0
Benzene	0		0		0		0		0		0		1.3 x 10 <sup>-13</sup>		1.3 x 10 <sup>-13</sup>
1,1-DCE	0		0		0		0		0		0		1.6 x 10 <sup>-12</sup>		1.6 x 10 <sup>-12</sup>
PCE	0		0		0		0		0		0		6.8 x 10 <sup>-12</sup>		6.8 x 10 <sup>-12</sup>
TCE	0		0		0		0		0		0		2.1 x 10 <sup>-12</sup>		2.1 x 10 <sup>-12</sup>
Total	9.9 x 10 <sup>-3</sup>		1.7 x 10 <sup>-6</sup>		3.0 x 10 <sup>-2</sup>		1.3 x 10 <sup>-5</sup>		2.3 x 10 <sup>-6</sup>		1.3 x 10 <sup>0</sup>		4.3 x 10 <sup>-6</sup>		1.3 x 10 <sup>0</sup>
RME Case															
PCBs	1.6 x 10 <sup>0</sup>		1.6 x 10 <sup>-5</sup>		4.7 x 10 <sup>-1</sup>		1.3 x 10 <sup>-5</sup>		2.1 x 10 <sup>-6</sup>		1.9 x 10 <sup>1</sup>		1.5 x 10 <sup>-5</sup>		2.1 x 10 <sup>1</sup>
TCDDeq	4.8 x 10 <sup>-4</sup>		1.2 x 10 <sup>-8</sup>		2.8 x 10 <sup>-4</sup>		2.0 x 10 <sup>-8</sup>		1.8 x 10 <sup>-7</sup>		5.0 x 10 <sup>-4</sup>		0		1.3 x 10 <sup>-3</sup>
Arsenic	2.4 x 10 <sup>-5</sup>		0		1.4 x 10 <sup>-5</sup>		0		0		2.1 x 10 <sup>-5</sup>		0		5.8 x 10 <sup>-5</sup>
Chromium VI	2.7 x 10 <sup>-8</sup>		0		4.6 x 10 <sup>-8</sup>		0		0		5.3 x 10 <sup>-8</sup>		0		1.3 x 10 <sup>-7</sup>
Cadmium	0		0		0		0		0		0		0		0
Benzene	0		0		0		0		0		0		4.5 x 10 <sup>-13</sup>		4.5 x 10 <sup>-13</sup>
1,1-DCE	0		0		0		0		0		0		5.7 x 10 <sup>-12</sup>		5.7 x 10 <sup>-12</sup>
PCE	0		0		0		0		0		0		2.4 x 10 <sup>-11</sup>		2.4 x 10 <sup>-11</sup>
TCE	0		0		0		0		0		0		7.3 x 10 <sup>-12</sup>		7.3 x 10 <sup>-12</sup>
Total	1.6 x 10 <sup>0</sup>		1.6 x 10 <sup>-5</sup>		4.7 x 10 <sup>-1</sup>		1.3 x 10 <sup>-5</sup>		2.3 x 10 <sup>-6</sup>		1.9 x 10 <sup>1</sup>		1.5 x 10 <sup>-5</sup>		2.1 x 10 <sup>1</sup>



TABLE D-15. CALCULATED CANCER RISKS, VISITOR SCENARIO

Chemical	Dermal Pathway	Soil Ingestion Pathway	Inhalation	Total by Chemical
PCBs	$6.9 \times 10^{-7}$	$3.7 \times 10^{-7}$	$2.7 \times 10^{-7}$	$1.3 \times 10^{-6}$
TCDDeq	$4.1 \times 10^{-7}$	$4.3 \times 10^{-7}$	$6.3 \times 10^{-9}$	$8.5 \times 10^{-7}$
Arsenic	$2.1 \times 10^{-7}$	$2.3 \times 10^{-7}$	$2.9 \times 10^{-8}$	$4.7 \times 10^{-7}$
Chromium VI	$2.4 \times 10^{-10}$	$7.5 \times 10^{-10}$	$1.3 \times 10^{-8}$	$1.4 \times 10^{-8}$
Cadmium	0	0	$6.2 \times 10^{-8}$	$6.2 \times 10^{-8}$
Benzene	0	0	$6.0 \times 10^{-15}$	$6.0 \times 10^{-15}$
1,1-DCE	0	0	$9.2 \times 10^{-14}$	$9.2 \times 10^{-14}$
PCE	0	0	$3.2 \times 10^{-13}$	$3.2 \times 10^{-13}$
TCE	0	0	$9.9 \times 10^{-14}$	$9.9 \times 10^{-14}$
Total by Pathway	$1.3 \times 10^{-6}$	$1.0 \times 10^{-6}$	$3.8 \times 10^{-7}$	$2.7 \times 10^{-6}$

TABLE D-16. HAZARD INDICES OF HYPOTHETICAL ON-SITE RESIDENTIAL SCENARIOS: AVERAGE AND RME CASES<sup>a</sup>

Chemical	Soil Dermal Absorption Pathway	Soil Ingestion Pathway	Homegrown Garden Ingestion Pathway	Hazard Quotient
<b>Average Case</b>				
Cadmium	$5.3 \times 10^{-4}$	$1.4 \times 10^{-1}$	$6.3 \times 10^{-1}$	0.77
Chromium III	$2.4 \times 10^{-5}$	$1.1 \times 10^{-3}$	$1.6 \times 10^{-4}$	0.0013
Copper	$4.2 \times 10^{-4}$	$1.9 \times 10^{-5}$	$1.5 \times 10^{-1}$	0.17
Mercury	$2.6 \times 10^{-4}$	$1.2 \times 10^{-2}$	$7.4 \times 10^{-2}$	0.086
Molybdenum	$1.5 \times 10^{-4}$	$6.8 \times 10^{-3}$	$1.3 \times 10^{-2}$	0.02
Selenium	$5.3 \times 10^{-4}$	$2.5 \times 10^{-2}$	$1.9 \times 10^{-2}$	0.044
Silver	$1.3 \times 10^{-4}$	$5.8 \times 10^{-3}$	$1.8 \times 10^{-2}$	0.024
Zinc	$1.8 \times 10^{-4}$	$8.5 \times 10^{-3}$	$2.4 \times 10^{-1}$	0.24
<b>Total</b>	$2.2 \times 10^{-3}$	$3.1 \times 10^{-1}$	<b>1.14</b>	<b>1.4</b>
<b>RME Case</b>				
Cadmium	$2.9 \times 10^{-3}$	$1.5 \times 10^{-1}$	$6.7 \times 10^{-1}$	0.82
Chromium III	$3.9 \times 10^{-4}$	$2.0 \times 10^{-3}$	$2.7 \times 10^{-4}$	0.0027
Copper	$6.1 \times 10^{-3}$	$3.1 \times 10^{-2}$	$2.3 \times 10^{-1}$	0.27
Mercury	$2.9 \times 10^{-3}$	$1.5 \times 10^{-2}$	$8.6 \times 10^{-2}$	0.10
Molybdenum	$2.0 \times 10^{-3}$	$1.0 \times 10^{-2}$	$1.8 \times 10^{-2}$	0.031
Selenium	$5.4 \times 10^{-3}$	$2.8 \times 10^{-2}$	$2.0 \times 10^{-2}$	0.053
Silver	$2.0 \times 10^{-3}$	$1.0 \times 10^{-2}$	$3.0 \times 10^{-2}$	0.043
Zinc	$2.9 \times 10^{-3}$	$1.5 \times 10^{-2}$	$4.0 \times 10^{-1}$	0.42
<b>Total</b>	$2.5 \times 10^{-2}$	$2.6 \times 10^{-1}$	<b>1.45</b>	<b>1.7</b>

<sup>a</sup> The sediment dermal absorption and ingestion pathways, surface water dermal absorption, and inhalation pathway had hazard indices of zero.

TABLE D-17. SEGREGATION OF HAZARD INDEX BY TARGET ORGAN OR SYSTEM  
HYPOTHETICAL ON-SITE RESIDENTIAL SCENARIO, RME CASE

Chemical	HQ	Affected System or Organ <sup>a</sup>				
		CB/BL	CNS/PNS	Kidney	GI/LV	Skin
Cadmium	0.8192			0.8192		
Chromium	0.002657			0.002657	0.002657	
Copper <sup>b</sup>	0.2672					
Mercury	0.10378			0.10378	0.10378	
Molybdenum (NL)	0.03065			0.03065	0.03065	
Selenium <sup>b</sup>	0.05323					0.0425
Silver (NL)	0.0426	0.0426				
Zinc	0.4177	0.4177				
<b>Total</b>		<b>0.56</b>	<b>0.10</b>	<b>0.96</b>	<b>0.14</b>	<b>0.04</b>

Average case results would produce lower HIs.

Respiratory system not evaluated; no exposures to these chemicals via this route.

<sup>a</sup> CAPCOA (California Air Pollution Control Officers Association), 1992 Air Toxics "Hot Spots" Risk Assessment Guidelines.

<sup>b</sup> Respiratory system is only endpoint.

HQ = Hazard Quotient, chemical specific.  
 NL = Not listed in CAPCOA, effects obtained from IRIS (On-Line), 1993.  
 CV/BL = Cardiovascular system or blood system.  
 CNS/PNS = Central or peripheral nervous system.  
 GI/LV = Gastrointestinal system and liver.

## D.1 On-Site Air Dispersion Analysis

On-site ambient air concentrations of particulates and vapors were calculated using the simple box model combined with meteorological data from McClellan AFB. This approach avoids the overly conservative assumptions of the simple box model: the wind comes from one direction at all times; and, the receptor is always located at the down-wind edge of the site. The model is still conservative in that vertical dispersion is limited to 2 meters.

Average wind speeds and frequencies in 16 directions were obtained from the meteorological data. Reported calms were divided among the directions according to their frequencies so that the relative wind direction frequencies would not change.

Emission rates of PCB and VOCs were obtained from the vadose zone modeling. The modeling indicated that surface fluxes of vapor phase PCBs were constant throughout unpaved areas of the DRMO. VOC fluxes were restricted to localized areas and assumed to be uniform inside these areas. Particulate fluxes were calculated with methods from U.S.EPA (1991)(attached calculation sheet) and were assumed to be uniform throughout the unpaved areas of DRMO.

Seven receptor locations, representing places where exposed people could be located in the DRMO yard, were established (Figure 4-1). All seven receptors were used for the worker scenarios. The fraction of time workers spend at each receptor was obtained from interviews with the DRMO yard supervisor (Van Dyke, 1993). People in the Hypothetical Residential Scenario were assumed to spend all their time at Receptor 1. Visitors attending the DRMO auction were assumed to split their time evenly between Receptors 5 and 6 (Auctions are restricted to the southern portion of the DRMO yard).

Average exposure concentrations were calculated with the following procedure.

- Map areas of emissions for particulates, vapor phase PCBs, and each VOC.
- Measure the upwind length of each area of emissions, in each wind direction, for each receptor. These values will be used as the site length in the box model calculations.
- Use the box model to calculate 16 ambient air concentrations for each chemical at each receptor. These are the chemical concentrations resulting from each wind direction at each receptor.
- Weight each concentration by each wind directions frequency of occurrence. This gives the average concentration of each chemical at each receptor.
- Weight the receptor average concentrations by the amount of time spent at each receptor to give average exposure concentrations for on-site workers, auction visitors, and hypothetical residents.

The following groups of calculation sheets calculate the average ambient air exposure concentrations for on-site workers, auction visitors, and hypothetical on-site residents.

# McCLELLAN OUBI HRA

Wind Direction Sensitive Box Model Hypothetical On-site Residential Scenario

FOR 5-11-93 808 5-11-93

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
Direction	9	6.8	5.4	5.3	4.9	5.9	8.2	9.9	9.7	9	7.5	5.1	5.2	6.2	9.1	11.2
avg. wind speed (mi/hr)	4.02	3.04	2.41	2.37	2.19	2.64	3.67	4.43	4.34	4.02	3.35	2.75	2.32	2.77	4.07	5.01
avg. wind speed (m/sec)	5.8	1.3	1.3	0.6	2.2	3	14.1	15.4	17.5	5.5	3.9	0.9	1.7	1.6	5.5	5.2
% without calm (b)	6.8	1.5	1.5	0.7	2.6	3.5	16.5	18.0	20.5	6.4	4.6	1.1	2.0	1.9	6.4	6.1

14.5 = percent calm

1.0 = Receptor 1

0 = Receptor 2

0 = Receptor 3

0 = Receptor 4

0 = Receptor 5

0 = Receptor 6

0 = Receptor 7

Fraction

of time at

each receptor

(Residential)

T/CBs Current		8.52E-04 = eurfact: flux (ug/m2-sec)															
Receptor		N	NNE	NE	FNE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	2.85	33	4.6	4.0	8.05	9.5	11.8	10.4	8.7	3.5	1.3	0.9	0.75	0.9	1.3	1.75
	2	0.65	0.7	1.1	2	1.9	3.8	9.5	12.2	11.1	11.3	5	2.9	2.05	2.1	1.1	0.7
	4	0	0	0	0	0	0	0.7	4.6	8.9	10.4	10.1	6.05	4	7.2	0	0
	4	1.05	1.3	1.9	2.7	2.55	3	3.6	7.9	7.8	9.2	10.1	8	6.9	7.2	6	2.7
	5	5.9	6.2	4	2.2	1.9	2.3	3.2	3.4	3	3.55	5.2	7.4	6.95	8.2	10	9.9
	6	7	7.4	7.3	8.3	7.5	8.1	8.1	5.5	4.7	4.9	3.4	2.3	2	2.2	3.4	6
	7	0	0	3.1	5.1	9.4	10.5	11.6	8.2	1.8	0	0	0	0	0	0	0
max. emission length (m)	1	53.5	68.9	96.0	96.0	180.6	198.3	246.3	217.1	181.6	73.1	27.1	18.8	15.7	18.8	27.1	36.5
	2	13.6	14.6	23.0	41.8	39.7	79.3	198.3	254.7	231.7	235.9	104.4	60.5	42.8	43.8	23.0	14.6
	3	0.0	0.6	0.0	0.0	0.0	0.0	14.6	96.0	185.8	217.1	210.8	126.5	83.5	45.9	0.0	0.0
	4	21.9	27.1	39.7	56.4	53.2	62.6	75.2	164.9	162.8	192.1	210.8	167.0	144.0	150.3	125.3	56.4
	5	123.2	129.4	83.5	45.9	39.7	48.0	66.8	71.0	62.6	74.1	108.6	154.5	145.1	171.2	208.8	206.7
	6	146.1	154.5	152.4	173.5	156.6	169.1	169.1	114.8	98.1	102.3	71.0	48.0	41.8	45.9	71.0	125.3
	7	0.0	0.0	64.7	104.5	196.2	219.2	242.2	171.2	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(P*1)/2W	1	6.30E-03	9.66E-03	1.70E-02	1.73E-02	3.51E-02	3.20E-02	2.86E-02	2.09E-02	1.78E-02	7.74E-03	3.45E-03	2.94E-03	2.87E-03	2.89E-03	2.84E-03	3.11E-03
	2	1.44E-03	2.63E-03	4.05E-03	7.51E-03	7.72E-03	1.28E-02	2.31E-02	2.45E-02	2.28E-02	2.50E-02	1.33E-02	9.46E-03	7.84E-03	6.74E-03	2.41E-03	1.24E-03
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	9.25E-03	1.83E-02	2.30E-02	2.68E-02	1.97E-02	1.53E-02	7.06E-03	0.00E+00	0.00E+00
	4	2.32E-03	3.80E-03	7.90E-03	1.01E-02	1.04E-02	1.01E-02	8.74E-03	1.59E-02	1.60E-02	2.03E-02	2.68E-02	2.61E-02	2.64E-02	2.31E-02	1.31E-02	4.80E-03
	5	1.30E-02	1.81E-02	1.47E-02	8.26E-03	7.72E-03	7.76E-03	7.77E-03	6.83E-03	6.15E-03	7.85E-03	1.38E-02	2.41E-02	2.66E-02	2.63E-02	2.19E-02	1.76E-02
	6	1.55E-02	2.17E-02	2.69E-02	3.12E-02	3.05E-02	2.73E-02	1.97E-02	1.11E-02	9.64E-03	1.08E-02	9.02E-03	7.50E-03	7.65E-03	7.06E-03	7.43E-03	1.07E-02
	7	0.00E+00	0.00E+00	1.14E-02	1.91E-02	3.82E-02	3.54E-02	2.81E-02	1.65E-02	3.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Weight Ambient Concentration (ug/m3)	1	4.23E-04	1.47E-04	2.58E-04	1.21E-04	9.04E-04	1.12E-03	4.72E-03	3.77E-03	3.65E-03	4.98E-04	1.57E-04	3.09E-05	5.71E-05	5.41E-05	1.83E-04	1.89E-04
	2	9.75E-05	3.11E-05	6.16E-05	5.27E-05	1.99E-04	4.50E-04	3.80E-03	4.42E-03	4.66E-03	1.61E-03	6.05E-04	9.96E-05	1.56E-04	1.26E-04	1.55E-04	7.56E-05
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-04	1.67E-03	3.74E-03	1.48E-03	1.22E-03	2.08E-04	3.04E-04	1.32E-04	0.00E+00	0.00E+00
	4	1.57E-04	5.78E-05	1.06E-04	7.11E-05	2.66E-04	3.55E-04	1.44E-03	2.96E-03	3.28E-03	1.31E-03	1.22E-03	2.75E-04	5.25E-04	4.32E-04	8.44E-04	2.92E-04
	5	8.85E-04	2.76E-04	2.24E-04	5.30E-05	1.99E-04	2.72E-04	1.28E-03	1.23E-03	1.26E-03	5.05E-04	6.29E-04	2.54E-04	5.29E-04	4.93E-04	1.41E-03	1.07E-03
	6	1.05E-03	3.29E-04	4.09E-04	2.10E-04	7.84E-04	9.59E-04	3.24E-03	1.99E-03	1.97E-03	6.97E-04	4.11E-04	7.90E-05	1.52E-04	1.32E-04	4.78E-04	6.48E-04
	7	0.00E+00	0.00E+00	1.74E-04	1.34E-04	9.82E-04	1.24E-03	4.64E-03	2.97E-03	7.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wght totals	1	1.63E-02	0.016291														
	2	1.66E-02	0														
	3	9.05E-03	0														
	4	1.35E-02	0														
	5	1.06E-02	0														
	6	1.36E-02	0														
	7	1.09E-02	0														
TOTAL		1.63E-02															
PCB (ug/m3)																	

1,1-DCE		1.82E-06 = surface flux (ug/m2-sec)															
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0.9	1.05	0	0	0	0	0	0	0
	4	0	0	0	0	0	0.5	1.05	0.8	0	0	0	0	0	0	0	0
	5	0	1.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	1.05	0.9	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	6.0	0.0	0.0	0.0	0.0	18.8	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	10.4	21.9	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	21.9	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-06	4.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-06	5.44E-06	3.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	6.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	8.42E-06	7.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct.Wghd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.06E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-07	8.97E-07	6.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	9.97E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	5.91E-08	2.01E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wght totals	1	2.65E-07	2.65E-07														
	2	8.97E-07	0.00E+00														
	3	1.64E-06	0.00E+00														
	4	1.64E-06	0.00E+00														
	5	9.97E-08	0.00E+00														
	6	2.60E-07	0.00E+00														
	7	2.65E-07	0.00E+00														
1,1-DCE (ug/m3 TOTAL		2.65E-07															

TCE		4.12E-05 = surface flux (ug/m2-sec)															
Receptor	max. emission length (cm)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1		0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
2		0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
3		0	0	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0
4		0	0	0	0	0	0	0	0	0	1	1.05	0	0	0	0	0
5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.05
6		0	0	0	1.05	0	0	0	0	0	0	0	0	0	0	0	0
7		0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
1	max. emission length (m)	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0
4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	21.9	0.0	0.0	0.0	0.0	0.0
5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9
6		0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7		0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-04	1.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct. Wghtd Ambient Concentration (ug/m3)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-06	6.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals		6.00E-06	6.00E-06	6.00E-06	6.00E-06	6.00E-06	6.00E-06	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00
TCE (ug/m3)		1	1.84E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	1.84E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	7.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	1.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	5.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	1.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	TOTAL	6.00E-06	6.00E-06	6.00E-06	6.00E-06	6.00E-06	6.00E-06	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00	6.00E+00



PCE																	
2.59E-05 =surface flux (ug/m2-sec)																	
max. emission length (cm)	Receptor	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	1	1.05	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.05
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	21.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Wghd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghd totals	1	3.77E-06	3.77E-06														
	2	1.15E-05	0.00E+00														
	3	4.53E-06	0.00E+00														
	4	8.17E-06	0.00E+00														
	5	3.44E-06	0.00E+00														
	6	8.40E-07	0.00E+00														
	7	3.77E-06	0.00E+00														
PCE (ug/m3)	TOTAL																

Benzene		2.47E-07 = surface flux (ug/m2-sec)															
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	1	1.05	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.05
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	21.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.72E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.40E-07	8.07E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.40E-07
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Wghd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.12E-08	3.68E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	3.60E-08	3.60E-08														
	2	1.10E-07	0.00E+00														
	3	4.32E-08	0.00E+00														
	4	7.80E-08	0.00E+00														
	5	3.29E-08	0.00E+00														
	6	8.01E-09	0.00E+00														
	7	3.60E-08	0.00E+00														
Benzene (ug/m3) TOTAL		3.60E-08															

McCLELLAN OUBI HRA

Wind Direction Sensitive Box Model Worker Scenarios

FOW 5-11-93 RDR 5-11-93

Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
avg. wind speed (mi/hr)	9	6.8	5.4	5.3	4.9	5.9	8.2	9.9	9.7	9	7.5	6.1	5.2	6.2	9.1	11.2
avg. wind speed (m/sec)	4.02	3.04	2.41	2.37	2.19	2.64	3.67	4.43	4.34	4.02	3.35	2.73	2.32	2.77	4.07	5.01
% without calm (b)	5.8	1.3	1.3	0.6	2.2	3	14.1	15.4	17.5	5.5	3.9	6.9	1.7	1.6	5.5	5.2
% including calms	6.8	1.5	1.5	0.7	2.6	3.5	16.5	18.0	20.5	6.4	4.0	1.1	2.0	1.9	6.4	6.1

14.5 = percent calm

Fraction of time at each receptor	0.01 = Receptor 1
	0.29 = Receptor 2
	0.145 = Receptor 3
	0.145 = Receptor 4
	0.145 = Receptor 5
	0.145 = Receptor 6
	0.12 = Receptor 7

(workers)

PCBs Current		8.52E-04 = surface flux (ug/m2-sec) UNCAPPED																			
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW				
max. emission length (cm)		2.85	3.3	4.6	4.6	8.65	9.5	11.8	10.4	8.7	3.5	1.3	0.9	0.75	0.9	1.3	1.75				
	1	0.65	0.7	1.1	2	1.9	3.8	9.5	12.2	11.1	11.3	5	2.9	2.05	2.1	1.1	0.7				
	2	0	0	0	0	0	0	0.7	4.6	8.9	10.4	10.1	6.05	4	2.2	0	0				
	3	1.05	1.3	1.9	2.7	2.55	3	3.6	7.9	7.8	9.2	10.1	8	6.9	7.2	6	2.7				
	4	5.9	6.2	4	2.2	1.9	2.3	3.2	3.4	3	3.55	5.2	7.4	6.95	8.2	10	9.9				
	5	7	7.4	7.3	8.3	7.5	8.1	8.1	5.5	4.7	4.9	3.4	2.3	2	2.2	3.4	6				
	6	0	0	3.1	5.1	9.4	10.5	11.6	8.2	1.8	0	0	0	0	0	0	0				
	7	59.5	68.9	96.0	96.0	180.6	198.3	246.3	217.1	181.6	73.1	27.1	18.8	15.7	18.8	27.1	36.5				
max. emission length (m)		13.6	14.6	23.0	41.8	39.7	79.3	198.3	254.7	231.7	235.9	101.4	60.5	42.8	43.8	23.0	14.6				
	1	0.0	0.0	0.0	0.0	0.0	0.0	14.6	96.0	185.8	217.1	210.8	125.3	83.5	45.9	0.0	0.0				
	2	21.9	27.1	39.7	56.4	53.2	62.6	75.2	164.9	162.8	192.1	210.8	167.9	144.0	150.3	125.3	56.4				
	3	123.2	129.4	83.5	45.9	39.7	48.0	66.8	71.0	62.6	74.1	108.6	151.5	145.1	171.2	208.8	206.7				
	4	146.1	154.5	152.4	173.3	156.6	169.1	169.1	114.8	98.1	102.3	71.0	48.0	41.8	45.9	71.0	125.3				
	5	0.0	0.0	64.7	106.5	196.2	219.2	242.2	171.2	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Box Model Concentration (ug/m3)		6.30E-03	9.66E-03	1.70E-02	1.73E-02	3.51E-02	3.20E-02	2.86E-02	2.09E-02	1.78E-02	7.74E-03	3.45E-03	2.94E-03	2.87E-03	2.89E-03	2.84E-03	3.11E-03				
C=(F*L)/2W		1.44E-03	2.05E-03	4.05E-03	7.51E-03	7.72E-03	1.28E-02	2.31E-02	2.45E-02	2.28E-02	2.50E-02	1.33E-02	9.46E-03	7.54E-03	6.74E-03	2.41E-03	1.24E-03				
	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	1.83E-02	2.30E-02	2.68E-02	1.97E-02	1.53E-02	7.65E-03	0.00E+00	0.00E+00				
	2	2.32E-03	3.80E-03	7.00E-03	1.01E-02	1.04E-02	1.01E-02	8.74E-03	1.59E-02	1.60E-02	2.03E-02	2.68E-02	2.61E-02	2.64E-02	2.31E-02	1.31E-02	4.80E-03				
	3	1.30E-02	1.81E-02	1.47E-02	8.26E-03	7.72E-03	7.76E-03	7.77E-03	6.83E-03	6.15E-03	7.85E-03	1.38E-02	2.41E-02	2.66E-02	2.63E-02	2.19E-02	1.76E-02				
	4	1.55E-02	2.17E-02	2.69E-02	3.12E-02	3.05E-02	2.73E-02	1.97E-02	1.11E-02	9.64E-03	1.08E-02	9.02E-03	7.30E-03	7.65E-03	7.86E-03	7.43E-03	1.07E-02				
	5	0.00E+00	0.00E+00	1.14E-02	1.91E-02	3.82E-02	3.54E-02	2.81E-02	1.65E-02	3.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Direct.Wgtd Ambient Concentration (ug/m3)		4.27E-04	1.47E-04	2.58E-04	1.21E-04	9.04E-04	1.12E-03	4.72E-03	3.77E-03	3.65E-03	4.98E-04	1.57E-04	3.09E-05	5.71E-05	5.41E-05	1.83E-04	1.89E-04				
	1	9.75E-05	3.11E-05	6.16E-05	5.27E-05	1.99E-04	4.50E-04	3.80E-03	4.42E-03	4.66E-03	1.61E-03	6.05E-04	9.96E-05	1.56E-04	1.26E-04	1.55E-04	7.56E-05				
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.67E-03	3.74E-03	1.48E-03	1.22E-03	2.08E-04	3.04E-04	1.32E-04	0.00E+00	0.00E+00				
	3	1.57E-04	5.78E-05	1.06E-04	7.11E-05	2.66E-04	3.55E-04	1.44E-03	2.86E-03	3.28E-03	1.31E-03	1.22E-03	2.75E-04	5.25E-04	4.32E-04	8.44E-04	2.92E-04				
	4	8.85E-04	2.76E-04	2.24E-04	5.80E-05	1.99E-04	2.72E-04	1.28E-03	1.23E-03	1.26E-03	5.05E-04	6.29E-04	2.54E-04	5.29E-04	4.93E-04	1.41E-03	1.07E-03				
	5	1.05E-03	3.29E-04	4.09E-04	2.19E-04	7.84E-04	9.59E-04	3.24E-03	1.99E-03	1.97E-03	6.97E-04	4.11E-04	7.90E-05	1.52E-04	1.32E-04	4.78E-04	6.48E-04				
	6	0.00E+00	0.00E+00	1.74E-04	1.34E-04	9.82E-04	1.24E-03	4.64E-03	2.97E-03	7.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
Receptor totals and wgtld totals		1.63E-02	0.00163																		
	1	1.66E-02	0.004813																		
	2	9.03E-03	0.001309																		
	3	1.35E-02	0.001956																		
	4	1.06E-02	0.001533																		
	5	1.36E-02	0.001965																		
	6	1.09E-02	0.001308																		
PCB (ug/m3)	TOTAL	1.30E-02																			

PCBs Current		8.22E-05 = surface flux (ug/m2-sec) CAPPED															
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	2.85	3.3	4.6	4.6	8.65	9.5	11.8	10.4	8.7	3.5	1.3	0.9	0.75	0.9	1.3	1.75
	2	0.65	0.7	1.1	2	1.9	3.8	9.5	12.2	11.1	11.3	5	2.9	2.05	2.1	1.1	0.7
	3	0	0	0	0	0	0	0.7	4.6	8.9	10.4	10.1	6.05	4	2.2	0	0
	4	1.05	1.3	1.9	2.7	2.55	3	3.6	7.9	7.8	9.2	10.1	8	6.9	7.2	6	2.7
	5	5.9	6.2	4	2.2	1.9	2.3	3.2	3.4	3	3.55	5.2	7.4	6.95	8.2	10	9.9
	6	7	7.4	7.3	8.3	7.5	8.1	8.1	5.5	4.7	4.9	3.4	2.3	2	2.2	3.4	6
	7	0	0	3.1	5.1	9.4	10.5	11.6	8.2	1.8	6	0	0	0	0	0	0
max. emission length (m)	1	59.5	68.9	96.0	96.0	180.6	198.3	246.3	217.1	181.6	73.1	27.1	18.8	15.7	18.8	27.1	36.5
	2	13.6	14.6	23.0	41.8	39.7	79.2	198.3	254.7	231.7	235.9	104.4	60.5	42.8	43.8	23.0	14.6
	3	0.0	0.0	0.0	0.0	0.0	0.0	14.6	96.0	185.8	217.1	213.8	126.3	83.5	45.9	0.0	0.0
	4	21.9	27.1	39.7	56.4	53.2	62.6	75.2	164.9	162.8	192.1	210.8	167.0	144.0	150.3	125.3	56.4
	5	123.2	129.4	83.5	45.9	39.7	48.0	66.8	71.0	62.6	74.1	108.6	154.5	145.1	171.2	208.8	206.7
	6	146.1	154.5	152.4	173.3	156.6	169.1	159.1	114.8	98.2	102.3	71.0	46.0	41.8	45.9	71.0	125.3
	7	0.0	0.0	64.7	106.5	196.2	219.2	242.2	171.2	37.6	9.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	6.08E-04	9.32E-04	1.64E-03	1.67E-03	3.39E-03	3.69E-03	2.76E-03	2.02E-03	1.72E-03	7.47E-04	3.33E-04	2.83E-04	2.77E-04	2.79E-04	2.74E-04	3.00E-04
	2	1.39E-04	1.98E-04	3.91E-04	7.25E-04	7.45E-04	1.24E-03	2.22E-03	2.37E-03	2.20E-03	2.41E-03	1.28E-03	9.13E-04	7.57E-04	6.50E-04	2.32E-04	1.20E-04
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.92E-04	1.76E-03	2.22E-03	2.59E-03	1.90E-03	1.48E-03	6.81E-04	0.00E+00	0.00E+00
	4	2.24E-04	3.67E-04	6.76E-04	9.78E-04	9.99E-04	9.76E-04	8.43E-04	5.33E-03	1.54E-03	1.96E-03	2.59E-03	2.52E-03	2.55E-03	2.23E-03	1.27E-03	4.63E-04
	5	1.26E-03	1.75E-03	1.42E-03	7.97E-04	7.45E-04	7.4E-04	7.47E-04	6.59E-04	5.94E-04	7.57E-04	1.33E-03	2.33E-03	2.57E-03	2.54E-03	2.11E-03	1.70E-03
	6	1.49E-03	2.09E-03	2.60E-03	3.01E-03	2.94E-03	2.64E-03	1.90E-03	1.07E-03	9.30E-04	1.05E-03	8.70E-04	7.24E-04	7.38E-04	6.81E-04	7.17E-04	1.03E-03
	7	0.00E+00	0.00E+00	1.10E-03	1.85E-03	3.68E-03	3.42E-03	2.72E-03	1.59E-03	3.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct. Wgtd Ambient Concentration (ug/m3)	1	4.12E-05	1.42E-05	2.49E-05	1.17E-05	3.72E-05	1.08E-04	4.56E-04	3.63E-04	3.52E-04	4.80E-05	1.52E-05	2.98E-06	5.51E-06	5.22E-06	1.76E-05	1.82E-05
	2	9.41E-06	3.01E-06	5.95E-06	5.08E-06	1.92E-05	4.34E-05	3.67E-04	4.26E-04	4.50E-04	1.55E-04	5.84E-05	9.61E-06	1.51E-05	1.22E-05	1.49E-05	7.30E-05
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-04	3.61E-04	1.13E-04	1.18E-04	2.09E-05	2.94E-05	1.27E-05	0.00E+00	0.00E+00
	4	1.52E-05	5.58E-06	1.03E-05	6.36E-06	2.57E-05	3.43E-05	1.39E-04	2.76E-04	3.16E-04	1.26E-04	1.18E-04	2.65E-05	5.07E-05	4.17E-05	8.14E-05	2.82E-05
	5	8.54E-05	2.66E-05	2.16E-05	5.59E-06	1.92E-05	2.63E-05	1.24E-04	1.19E-04	1.22E-04	4.87E-05	6.07E-05	2.45E-05	5.16E-05	4.75E-05	1.36E-04	1.03E-04
	6	1.01E-04	3.18E-05	3.95E-05	2.11E-05	7.56E-05	9.25E-05	3.13E-04	1.92E-04	1.50E-04	6.72E-05	3.97E-05	7.62E-06	1.47E-05	1.27E-05	4.61E-05	6.26E-05
	7	0.00E+00	0.00E+00	1.68E-05	1.30E-05	9.49E-05	1.20E-04	4.48E-04	2.86E-04	7.29E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	1.57E-03	1.57E-05														
	2	1.66E-03	0.000464														
	3	8.71E-04	0.000126														
	4	1.30E-03	0.000189														
	5	1.02E-03	0.000148														
	6	1.31E-03	0.00019														
	7	1.05E-03	0.000126														
PCB (ug/m3)	TOTAL																1.26E-03

PCBs HD-10		UN CAPPED															
8.52E-04		=surface flux (ug/m2-sec)															
Receptor		N	NNF	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	1.45	3.7	7.4	6.6	5.55	0.3	0	0	0	0	0	0
	2	0	0	0	0	0	0.95	3.65	6.3	5.55	5.7	0	0	0	0	0	0
	3	0	0	0	0	0	0	0.3	3.7	7.35	6.25	6	0	0	0	0	0
	4	0	0	0	0.7	1.45	2	2.5	6.9	6.65	6.55	7.25	4.25	0	0	0	0
	5	4.4	6.2	3.9	2.15	1.85	2.2	3.35	3.45	2.95	3.5	5.3	7.4	7	7.25	4.5	3.1
	6	0.8	1	1.4	7.4	7.4	8.05	8.15	5.6	4.7	5	3.5	2.3	1.95	1.95	1.4	0.9
	7	0	0	0	0	1.65	5.95	8.2	6.5	1.95	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	30.3	77.2	154.5	137.8	115.9	6.3	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	19.8	76.2	131.5	115.9	119.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	6.3	77.2	153.4	130.5	125.3	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	14.6	30.3	41.8	52.2	144.0	138.6	136.7	151.3	88.7	0.0	0.0	0.0	0.0
	5	91.9	129.4	81.4	44.9	38.6	45.9	69.9	72.0	61.6	73.1	110.6	154.5	146.1	151.3	93.9	64.7
	6	16.7	20.9	29.2	154.5	154.5	168.0	170.1	116.9	98.1	104.4	73.1	48.0	40.7	40.7	29.2	18.8
	7	0.0	0.0	0.0	0.0	34.4	124.2	171.2	135.7	40.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.89E-03	1.25E-02	1.80E-02	1.33E-02	1.14E-02	6.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-03	8.86E-03	1.27E-02	1.14E-02	1.26E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.28E-04	7.44E-03	1.51E-02	1.38E-02	1.59E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	2.63E-03	5.89E-03	6.75E-03	6.07E-03	1.39E-02	1.36E-02	1.45E-02	1.92E-02	1.39E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	9.73E-03	1.81E-02	1.44E-02	8.07E-03	7.51E-03	7.42E-03	8.13E-03	6.93E-03	6.05E-03	7.74E-03	1.41E-02	2.41E-02	2.68E-02	2.33E-02	9.84E-03	5.51E-03
	6	1.77E-03	2.93E-03	5.16E-03	2.78E-02	3.01E-02	2.72E-02	1.98E-02	1.13E-02	9.64E-03	1.11E-02	9.29E-03	7.50E-03	7.46E-03	6.26E-03	3.06E-03	1.60E-03
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.70E-03	2.01E-02	1.99E-02	1.31E-02	4.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct.Wghd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-04	4.38E-04	2.96E-03	2.39E-03	2.33E-03	4.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-04	1.46E-03	2.28E-03	2.23E-03	8.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-04	1.34E-03	3.09E-03	8.89E-04	7.26E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	1.84E-05	1.52E-04	2.37E-04	1.00E-03	2.50E-03	2.79E-03	9.32E-04	8.77E-04	1.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	6.60E-04	2.76E-04	2.19E-04	5.66E-05	1.93E-04	2.60E-04	1.34E-03	1.25E-03	1.24E-03	4.98E-04	6.41E-04	2.54E-04	5.33E-04	4.35E-04	6.33E-04	3.35E-04
	6	1.20E-04	4.45E-05	7.84E-05	1.95E-04	7.73E-04	9.53E-04	3.26E-03	2.03E-03	1.97E-03	7.11E-04	4.24E-04	7.90E-05	1.48E-04	1.17E-04	1.97E-04	9.73E-05
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-04	7.04E-04	3.28E-03	2.35E-03	8.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghd totals	1	8.31E-03	8.31E-05														
	2	7.00E-03	0.002029														
	3	6.16E-03	0.000893														
	4	8.65E-03	0.001255														
	5	8.82E-03	0.001279														
	6	1.12E-02	0.001624														
	7	7.33E-03	0.00088														
TOTAL		8.04E-03															
PCB (ug/m3)																	

[illegible]

PM-10 Current		=surface flux (ug/m2-sec)															
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	2.85	3.3	4.6	4.6	8.65	9.5	11.8	10.4	8.7	3.5	1.3	0.9	0.75	0.9	1.3	1.75
	2	0.65	0.7	1.1	2	1.9	3.8	9.5	12.2	11.1	11.3	5	2.9	2.05	2.1	1.1	0.7
	3	0	0	0	0	0	0	0.7	4.6	8.9	10.4	10.1	6.05	4	2.2	0	0
	4	1.05	1.3	1.9	2.7	2.55	3	3.6	7.9	7.8	9.2	10.1	8	6.9	7.2	6	2.7
	5	5.9	6.2	4	2.2	1.9	2.3	3.2	3.4	3	3.55	5.2	7.4	6.95	8.2	10	9.9
	6	7	7.4	7.3	8.3	7.5	8.1	8.1	5.5	4.7	4.9	3.4	2.3	2	2.2	3.4	6
	7	0	0	3.1	5.1	9.4	10.5	11.6	8.2	1.8	0	0	0	0	0	0	0
max. emission length (m)	1	59.5	68.9	96.0	96.0	180.6	198.3	246.3	217.1	181.6	73.1	27.1	18.8	15.7	18.8	27.1	36.5
	2	13.6	14.6	23.0	41.8	39.7	79.3	198.3	254.7	231.7	235.9	104.4	60.5	42.8	43.8	23.0	14.6
	3	0.0	0.0	0.0	0.0	0.0	0.0	14.6	96.0	185.8	217.1	210.8	126.3	83.5	45.9	0.0	0.0
	4	21.9	27.1	39.7	56.4	53.2	62.6	75.2	164.9	162.8	192.1	210.8	167.0	144.0	150.3	125.3	56.4
	5	123.2	129.4	83.5	45.9	39.7	48.0	66.8	71.0	62.6	74.1	108.6	154.5	145.1	171.2	208.8	206.7
	6	146.1	154.5	152.4	173.3	156.6	169.1	169.1	114.8	98.1	102.3	71.0	48.0	41.8	45.9	71.0	125.3
	7	0.0	0.0	64.7	106.5	196.2	219.2	242.2	171.2	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	3.78E+00	5.79E+01	1.02E+02	1.04E+02	2.11E+02	1.92E+02	1.72E+02	1.25E+02	1.07E+02	4.64E+01	2.07E+01	1.76E+01	1.72E+01	1.73E+01	1.70E+01	1.86E+01
	2	8.62E+00	1.23E+01	2.43E+01	4.50E+01	4.63E+01	7.69E+01	1.38E+02	1.47E+02	1.37E+02	1.50E+02	7.95E+01	5.67E+01	4.70E+01	4.04E+01	1.44E+01	7.46E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E+01	5.54E+01	1.09E+02	1.38E+02	1.61E+02	1.18E+02	9.18E+01	4.23E+01	0.00E+00	0.00E+00
	4	1.39E+01	2.28E+01	4.20E+01	6.08E+01	6.21E+01	6.07E+01	5.24E+01	9.52E+01	9.60E+01	1.22E+02	1.61E+02	1.56E+02	1.58E+02	1.39E+02	7.87E+01	2.88E+01
	5	7.82E+01	1.09E+02	8.84E+01	4.95E+01	4.63E+01	4.65E+01	4.66E+01	4.10E+01	3.69E+01	4.71E+01	8.27E+01	1.45E+02	1.59E+02	1.58E+02	1.31E+02	1.05E+02
	6	9.28E+01	1.30E+02	1.61E+02	1.87E+02	1.83E+02	1.64E+02	1.18E+02	6.63E+01	5.78E+01	6.50E+01	5.41E+01	4.50E+01	4.59E+01	4.23E+01	4.46E+01	6.39E+01
	7	0.00E+00	0.00E+00	6.85E+01	1.15E+02	2.29E+02	2.12E+02	1.69E+02	9.88E+01	2.21E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct,Wghtd Ambient Concentration (ug/m3)	1	2.56E+00	8.80E-01	1.55E+00	7.27E-01	5.42E+00	6.74E+00	2.83E+01	2.26E+01	2.19E+01	2.99E+00	9.43E+01	1.83E-01	3.42E-01	3.24E-01	1.10E+00	1.13E+00
	2	5.85E-01	1.87E-01	3.70E-01	3.16E-01	1.19E+00	2.70E+00	2.28E+01	2.65E+01	2.79E+01	9.64E+00	3.63E+00	5.97E-01	9.35E-01	7.56E-01	9.28E-01	4.54E-01
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E+00	9.99E+00	2.24E+01	8.87E+00	7.33E+00	1.25E+00	1.83E+00	7.92E-01	0.00E+00	0.00E+00
	4	9.44E-01	3.47E-01	6.38E-01	4.27E-01	1.60E+00	2.13E+00	8.64E+00	1.72E+01	1.96E+01	7.85E+00	7.33E+00	1.65E+00	3.15E+00	2.59E+00	5.06E+00	1.75E+00
	5	5.31E+00	1.65E+00	1.34E+00	3.48E-01	1.19E+00	1.63E+00	7.68E+00	7.38E+00	7.55E+00	3.03E+00	3.77E+00	1.52E+00	3.17E+00	2.95E+00	8.43E+00	6.41E+00
	6	6.30E+00	1.97E+00	2.45E+00	1.31E+00	4.70E+00	5.75E+00	1.94E+01	1.19E+01	1.18E+01	4.18E+00	2.47E+00	4.74E-01	9.13E-01	7.92E-01	2.87E+00	3.89E+00
	7	0.00E+00	0.00E+00	1.04E+00	8.06E-01	5.89E+00	7.45E+00	2.78E+01	1.78E+01	4.53E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	9.77E+01	0.976874														
	2	9.95E+01	28.85806														
	3	5.41E+01	7.849881														
	4	8.09E+01	11.72846														
	5	6.34E+01	9.191155														
	6	8.13E+01	11.78465														
	7	6.54E+01	7.84306														
TOTAL		7.82E+01															
PM-10 (ug/m3)																	



PM-10 HD-10 5.11E+00 =surface flux (ug/m2-sec)															
Receptor	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	1.45	3.7	7.4	6.6	5.55	0.3	0	0	0	0	0
	2	0	0	0	0	0.95	3.65	6.3	5.55	5.7	0	0	0	0	0
	3	0	0	0	0	0	0.3	3.7	7.35	6.25	6	0	0	0	0
	4	0	0	0	1.45	2	2.5	6.9	6.65	6.55	7.25	4.25	0	0	0
	5	4.4	6.2	3.9	1.85	2.2	3.35	3.45	2.95	3.5	5.3	7.4	7	7.25	4.5
	6	0.8	1	1.4	7.4	8.05	8.15	5.6	4.7	5	3.5	2.3	1.95	1.95	1.4
	7	0	0	0	1.65	5.95	8.2	6.5	1.95	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	30.3	77.2	154.5	137.8	115.9	6.3	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	19.8	76.2	131.5	115.9	119.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	6.3	77.2	153.4	130.5	125.3	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	30.3	41.8	52.2	144.0	138.8	136.7	151.3	88.7	0.0	0.0	0.0
	5	91.9	129.4	81.4	38.6	45.9	69.9	72.0	61.6	73.1	110.6	154.5	146.1	151.3	93.9
	6	16.7	20.9	29.2	154.5	168.0	170.1	116.9	98.1	104.4	73.1	48.0	40.7	40.7	29.2
	7	0.0	0.0	0.0	34.4	124.2	171.2	135.7	40.7	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	3.53E+01	7.48E+01	1.08E+02	7.95E+01	6.83E+01	3.98E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E+01	5.31E+01	7.59E+01	6.83E+01	7.56E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.37E+00	4.46E+01	9.04E+01	8.29E+01	9.55E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	1.58E+01	4.04E+01	3.64E+01	8.32E+01	8.18E+01	8.68E+01	1.15E+02	8.31E+01	0.00E+00	0.00E+00	0.00E+00
	5	5.83E+01	1.09E+02	8.62E+01	4.84E+01	4.45E+01	4.87E+01	4.16E+01	3.63E+01	4.64E+01	8.43E+01	1.45E+02	1.61E+02	1.40E+02	5.90E+01
	6	1.06E+01	1.75E+01	1.09E+01	1.67E+02	1.63E+02	1.19E+02	6.75E+01	5.78E+01	6.63E+01	5.57E+01	4.50E+01	4.47E+01	3.75E+01	1.84E+01
	7	0.00E+00	0.00E+00	0.00E+00	4.02E+01	1.20E+02	1.18E+02	7.83E+01	2.40E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct.Wghtd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.74E-01	8.76E+00	1.37E+01	1.40E+01	4.86E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.20E-01	8.03E+00	1.85E+01	5.33E+00	4.35E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E+00	1.50E+01	1.67E-01	5.59E+00	5.26E+00	8.75E-01	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	1.11E-01	1.42E+00	8.04E+00	1.50E+01	7.43E+00	2.99E+00	3.85E+00	1.52E+01	3.19E+00	2.61E+00	3.80E+00
	5	3.96E+00	1.65E+01	1.31E+00	3.40E-01	1.16E+00	1.56E+00	8.04E+00	7.49E+00	1.18E+00	4.26E+00	2.54E+00	4.74E-01	8.90E-01	1.18E+00
	6	7.20E-01	2.67E-01	4.70E-01	1.17E+00	4.64E+00	5.71E+00	1.96E+01	1.22E+01	1.18E+01	4.26E+00	2.54E+00	4.74E-01	8.90E-01	7.02E-01
	7	0.00E+00	0.00E+00	0.00E+00	0.60E+00	1.03E+00	4.22E+00	1.97E+01	1.41E+01	4.91E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	4.99E+01	0.4985												
	2	4.19E+01	12.1641												
	3	3.69E+01	5.356723												
	4	5.19E+01	7.523079												
	5	5.29E+01	7.670842												
	6	6.72E+01	9.737866												
	7	4.40E+01	5.274563												
TOTAL		4.82E+01													
PM-10 (ug/m3)															

1.1-DCE		1.82E-06 =surface flux (ug/m2.sec)															
	Receptor	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0.9	1.05	0	0	0	0	0	0	0
	4	0	0	0	0	0	0.5	1.05	0.8	0	0	0	0	0	0	0	0
	5	0	1.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	1.05	0.9	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	10.4	21.9	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3)  C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-06	4.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-06	5.44E-06	3.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	6.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.42E-06	7.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.96E-07	9.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-07	8.97E-07	6.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	9.97E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.91E-08	2.01E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	2.65E-07	2.65E-09														
	2	8.97E-07	2.60E-07														
	3	1.64E-06	2.37E-07														
	4	1.64E-06	2.38E-07														
	5	9.97E-08	1.45E-08														
	6	2.60E-07	3.77E-08														
	7	2.65E-07	3.18E-08														
1.1-DCE (ug/m3 TOTAL		8.22E-07															

TCE		4.12E-05 =surface flux (ug/m2-sec)															
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	1	1.05	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.05
	6	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	21.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9
	6	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-04	1.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Wgtd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-06	6.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	1.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.48E-06
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	6.00E-06	6.00E-08			0.00E+00	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	1.84E-05	5.33E-06			0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	7.21E-06	1.05E-06			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	1.30E-05	1.89E-06			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	5.48E-06	7.95E-07			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	1.34E-06	1.94E-07			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	6.00E-06	7.20E-07			0.00E+00	6.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL		1.00E-05															
TCE (ug/m3)																	

PCE		2.59E-05 = surface flux (ug/m2-sec)													
max. emission length (cm)	Receptor	N	NNE	NIE	ENE	E	ESE	SE	SSE	SW	WSW	W	WNW	NW	NNW
	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	1.05	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1.05
	7	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9
	7	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct, Wgtd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.40E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	3.77E-06	3.77E-08	0.00E+00	0.00E+00	0.00E+00	3.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	1.15E-05	3.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	4.53E-06	6.57E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	8.17E-06	1.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	3.44E-06	4.99E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	8.40E-07	1.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	3.77E-06	4.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PCE (ug/m3)	TOTAL		6.30E-06												

[illegible]

McCLELLAN OUBI HRA

Wind Direction Sensitive Box Model Visitor Scenario

FUW 5-11-93 RDR 5-11-93

Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
avg. wind speed (mi/hr)	9	6.8	5.4	5.3	4.9	5.9	8.2	9.9	9.7	9	7.5	6.1	5.2	6.2	9.1	11.2
avg. wind speed (m/sec)	4.02	3.04	2.41	2.37	2.19	2.64	3.67	4.43	4.34	4.02	3.35	2.73	2.32	2.77	4.07	5.01
% without calm (b)	5.8	1.3	1.3	0.6	2.2	3	14.1	15.4	17.5	5.5	3.9	0.9	1.7	1.6	5.5	5.2
% including calms	6.8	1.5	1.5	0.7	2.6	3.5	16.5	18.0	20.5	6.4	4.6	1.1	2.0	1.9	6.4	6.1

14.5 = percent calm

0 = Receptor 1

0 = Receptor 2

0 = Receptor 3

0 = Receptor 4

0.5 = Receptor 5

0.5 = Receptor 6

0 = Receptor 7

Fraction

of time at

each receptor

(Visitor)

PCBs Current		8.52E-04 = surface flux (ug/m2-sec)															
	Receptor	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	2.85	3.3	4.6	4.6	8.65	9.5	11.8	10.4	8.7	3.5	1.3	0.9	0.75	0.9	1.3	1.75
	2	0.65	0.7	1.1	2	1.9	3.8	9.5	12.2	11.1	11.3	5	2.9	2.05	2.1	1.1	0.7
	3	0	0	0	0	0	0	0.7	4.6	8.9	10.4	10.1	6.05	4	2.2	0	0
	4	1.05	1.3	1.9	2.7	2.55	3	3.6	7.9	7.8	9.2	10.1	8	6.9	7.2	6	2.7
	5	5.9	6.2	4	2.2	1.9	2.3	3.2	3.4	3	3.55	5.2	7.4	6.95	8.2	10	9.9
	6	7	7.4	7.3	8.3	7.5	8.1	8.1	5.5	4.7	4.9	3.4	2.3	2	2.2	3.4	6
	7	0	0	3.1	5.1	9.4	10.5	11.6	8.2	1.8	0	0	0	0	0	0	0
max. emission length (m)	1	59.5	68.9	96.0	96.0	180.6	198.3	246.3	217.1	181.6	73.1	27.1	18.8	15.7	18.8	27.1	36.5
	2	13.6	14.6	23.0	41.8	39.7	79.3	198.3	254.7	231.7	235.9	104.4	60.5	42.8	43.8	23.0	14.6
	3	0.0	0.0	0.0	0.0	0.0	0.0	14.6	96.0	185.8	217.1	210.8	126.3	83.5	45.9	0.0	0.0
	4	21.9	27.1	39.7	56.4	53.2	62.6	75.2	164.9	162.8	192.1	210.8	167.0	144.0	150.3	125.3	56.4
	5	123.2	129.4	83.5	45.9	39.7	48.0	66.8	71.0	62.6	74.1	108.6	154.5	145.1	171.2	208.8	206.7
	6	146.1	154.5	152.4	173.3	156.6	169.1	169.1	114.8	98.1	102.3	71.0	48.0	41.8	45.9	71.0	125.3
	7	0.0	0.0	64.7	106.5	196.2	219.2	242.2	171.2	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/2W	1	6.30E-03	9.66E-03	1.70E-02	1.73E-02	3.51E-02	3.20E-02	2.86E-02	2.09E-02	1.78E-02	7.74E-03	3.45E-03	2.94E-03	2.87E-03	2.89E-03	2.84E-03	3.11E-03
	2	1.44E-03	2.05E-03	4.05E-03	7.51E-03	7.72E-03	1.28E-02	2.31E-02	2.45E-02	2.28E-02	2.50E-02	1.33E-02	9.46E-03	7.84E-03	6.74E-03	2.41E-03	1.24E-03
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	9.25E-03	1.83E-02	2.30E-02	2.68E-02	1.97E-02	1.53E-02	7.06E-03	0.00E+00	0.00E+00
	4	2.32E-03	3.80E-03	7.00E-03	1.01E-02	1.04E-02	1.01E-02	8.74E-03	1.59E-02	1.60E-02	2.03E-02	2.68E-02	2.61E-02	2.64E-02	2.31E-02	1.31E-02	4.80E-03
	5	1.30E-02	1.81E-02	1.47E-02	8.26E-03	7.72E-03	7.76E-03	7.77E-03	6.83E-03	6.15E-03	7.85E-03	1.38E-02	2.41E-02	2.66E-02	2.63E-02	2.19E-02	1.76E-02
	6	1.55E-02	2.17E-02	2.69E-02	3.12E-02	3.05E-02	2.73E-02	1.97E-02	1.11E-02	9.64E-03	1.08E-02	9.02E-03	7.50E-03	7.65E-03	7.06E-03	7.43E-03	1.07E-02
	7	0.00E+00	0.00E+00	1.14E-02	1.91E-02	3.82E-02	3.54E-02	2.81E-02	1.65E-02	3.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Wghtd Ambient Concentration (ug/m3)	1	4.27E-04	1.47E-04	2.58E-04	1.21E-04	9.04E-04	1.12E-03	4.72E-03	3.77E-03	3.65E-03	4.98E-04	1.57E-04	3.09E-05	5.71E-05	5.41E-05	1.83E-04	1.89E-04
	2	9.75E-05	3.11E-05	6.16E-05	5.27E-05	1.99E-04	4.50E-04	3.80E-03	4.42E-03	4.66E-03	1.61E-03	6.05E-04	9.96E-05	1.56E-04	1.26E-04	1.55E-04	7.56E-05
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-04	1.67E-03	3.74E-03	1.48E-03	1.22E-03	2.08E-04	3.04E-04	1.32E-04	0.00E+00	0.00E+00
	4	1.57E-04	5.78E-05	1.06E-04	7.11E-05	2.66E-04	3.55E-04	1.44E-03	2.86E-03	3.28E-03	1.31E-03	1.22E-03	2.75E-04	5.25E-04	4.32E-04	8.44E-04	2.92E-04
	5	8.85E-04	2.76E-04	2.24E-04	5.80E-05	1.99E-04	2.72E-04	1.28E-03	1.23E-03	1.26E-03	5.05E-04	6.29E-04	2.54E-04	5.29E-04	4.93E-04	1.41E-03	1.07E-03
	6	1.05E-03	3.29E-04	4.09E-04	2.19E-04	7.84E-04	9.59E-04	3.24E-03	1.99E-03	1.97E-03	6.97E-04	4.11E-04	7.90E-05	1.52E-04	1.32E-04	4.78E-04	6.48E-04
	7	0.00E+00	0.00E+00	1.74E-04	1.34E-04	9.82E-04	1.24E-03	4.64E-03	2.97E-03	7.56E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	1.63E-02	0														
	2	1.66E-02	0														
	3	9.03E-03	0														
	4	1.35E-02	0														
	5	1.06E-02	0.00528 <sup>c</sup>														
	6	1.36E-02	0.006777														
	7	1.09E-02	0														
TOTAL		1.21E-02															
PCB (ug/m3)																	

TCE		4.12E-05 =surface flux (ug/m2-sec)															
	Receptor	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	1	1.05	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.05
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	21.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	21.9	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3)  C=(F*L)/2W	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-04	1.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.01E-05
	7	0.00E+00	0.00E+00	0.00E+00	1.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-06	6.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.48E-06
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	1.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghtd totals	1	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	1.84E-05	0.00E+00														
	3	7.21E-06	0.00E+00														
	4	1.30E-05	0.00E+00														
	5	5.48E-06	2.74E-06														
	6	1.34E-06	6.68E-07														
	7	6.00E-06	0.00E+00														
TCE (ug/m3)	TOTAL	3.41E-06															



PM-10 Current		5.11E+00 = surface flux (ug/m2-sec)															
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)																	
1		2.85	3.3	4.6	4.6	8.65	9.5	11.8	10.4	8.7	3.5	1.3	0.9	0.75	0.9	1.3	1.75
2		0.65	0.7	1.1	2	1.9	3.8	9.5	12.2	11.1	11.3	5	2.9	2.05	2.1	1.1	0.7
3		0	0	0	0	0	0	0.7	4.6	8.9	10.4	10.1	6.05	4	2.2	0	0
4		1.05	1.3	1.9	2.7	2.55	3	3.6	7.9	7.8	9.2	10.1	8	6.9	7.2	6	2.7
5		5.9	6.2	4	2.2	1.9	2.3	3.2	3.4	3	3.55	5.2	7.4	6.95	8.2	10	9.9
6		7	7.4	7.3	8.3	7.5	8.1	8.1	5.5	4.7	4.9	3.4	2.3	2	2.2	3.4	6
7		0	0	3.1	5.1	9.4	10.5	11.6	8.2	1.8	0	0	0	0	0	0	0
max. emission length (m)																	
1		59.5	68.9	96.0	96.0	180.6	198.3	246.3	217.1	181.6	73.1	27.1	18.8	15.7	18.8	27.1	36.5
2		13.6	14.6	23.0	41.8	39.7	79.3	198.3	254.7	231.7	235.9	104.4	60.5	42.8	43.8	23.0	14.6
3		0.0	0.0	0.0	0.0	0.0	0.0	14.6	96.0	185.8	217.1	210.8	126.3	83.5	45.9	0.0	0.0
4		21.9	27.1	39.7	56.4	53.2	62.6	75.3	164.9	162.8	192.1	210.8	167.0	144.0	150.3	125.3	56.4
5		123.2	129.4	83.5	45.9	39.7	48.0	65.8	71.0	62.6	74.1	108.6	154.5	145.1	171.2	208.8	206.7
6		146.1	154.5	152.4	173.3	156.6	169.1	169.1	114.8	98.1	102.3	71.0	48.0	41.8	45.9	71.0	125.3
7		0.0	0.0	64.7	106.5	196.2	219.2	242.2	171.2	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3)																	
1		3.78E+00	5.79E+01	1.02E+02	1.04E+02	2.11E+02	1.92E+02	1.72E+02	1.25E+02	1.07E+02	4.64E+01	2.07E+01	1.76E+01	1.72E+01	1.73E+01	1.70E+01	1.86E+01
2		8.62E+00	1.23E+01	2.43E+01	4.50E+01	4.63E+01	7.69E+01	1.38E+02	1.47E+02	1.37E+02	1.50E+02	7.95E+01	5.67E+01	4.70E+01	4.04E+01	1.44E+01	7.46E+00
3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E+01	5.54E+01	1.09E+02	1.38E+02	1.61E+02	1.18E+02	9.18E+01	4.23E+01	0.00E+00	0.00E+00
4		1.39E+01	2.28E+01	4.20E+01	6.08E+01	6.21E+01	6.07E+01	5.24E+01	9.52E+01	9.60E+01	1.22E+02	1.61E+02	1.56E+02	1.58E+02	1.39E+02	7.87E+01	2.88E+01
5		7.82E+01	1.09E+02	8.84E+01	4.95E+01	4.63E+01	4.65E+01	4.66E+01	4.10E+01	3.69E+01	4.71E+01	8.27E+01	1.45E+02	1.59E+02	1.58E+02	1.31E+02	1.05E+02
6		9.28E+01	1.30E+02	1.61E+02	1.87E+02	1.83E+02	1.64E+02	1.18E+02	6.63E+01	5.78E+01	6.50E+01	5.41E+01	4.50E+01	4.59E+01	4.23E+01	4.46E+01	6.39E+01
7		0.00E+00	0.00E+00	6.85E+01	1.15E+02	2.29E+02	2.12E+02	1.69E+02	9.88E+01	2.21E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct.Wghd Ambient Concentration (ug/m3)																	
1		2.56E+00	8.80E-01	1.55E+00	7.27E-01	5.42E+00	6.74E+00	2.83E+01	2.26E+01	2.19E+01	2.99E+00	9.43E+01	1.85E-01	3.42E-01	3.00E+00	1.10E+00	1.13E+00
2		5.85E-01	1.87E-01	3.70E-01	3.16E-01	1.19E+00	2.70E+00	2.28E+01	2.65E+01	2.79E+01	9.64E+00	3.63E+00	5.97E-01	9.35E-01	7.56E-01	9.28E-01	4.54E-01
3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E+00	9.99E+00	2.24E+01	8.87E+00	7.33E+00	1.25E+00	1.83E+00	7.92E-01	0.00E+00	0.00E+00
4		9.44E-01	3.47E-01	6.38E-01	4.27E-01	1.60E+00	2.13E+00	8.64E+00	1.72E+01	1.96E+01	7.85E+00	7.33E+00	1.65E+00	3.15E+00	2.59E+00	5.06E+00	1.75E+00
5		5.31E+00	1.65E+00	1.34E+00	3.48E-01	1.19E+00	1.63E+00	7.68E+00	7.38E+00	7.55E+00	3.03E+00	3.77E+00	1.52E+00	3.17E+00	2.95E+00	8.43E+00	6.41E+00
6		6.30E+00	1.97E+00	2.45E+00	1.31E+00	4.70E+00	5.75E+00	1.94E+01	1.19E+01	1.18E+01	4.18E+00	2.47E+00	4.74E-01	9.13E-01	7.92E-01	2.87E+00	3.89E+00
7		0.00E+00	0.00E+00	1.04E+00	8.06E-01	5.89E+00	7.45E+00	2.78E+01	1.78E+01	4.53E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.06E+00	0.00E+00	0.00E+00
Receptor totals and wghd totals		19.77E+01	0	0	0	2	9.95E+01	0	0	3	5.41E+01	0	0	4	8.09E+01	0	0
		5	6.34E+01	31.69364		6	8.13E+01	40.63672		7	6.54E+01	0	0				
PM-10 (ug/m3)		7.23E+01															

1.1-DCE		1.8E-06 = surface flux (ug/m2 sec)														
Receptor	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
max. emission length (cm)	1	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	0
	4	0	0	0	0	0	0.5	1.05	0.8	0	0	0	0	0	0	0
	5	0	1.05	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	1.05	0.9	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	0
max. emission length (m)	1	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	10.4	21.9	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	21.9	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Box Model Concentration (ug/m3) C=(F*L)/ZW	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-06	5.44E-06	3.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Direct Wghd Ambient Concentration (ug/m3)	1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-07	8.97E-07	6.18E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	5	0.00E+00	9.97E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	6	0.00E+00	0.00E+00	0.00E+00	5.91E-08	2.01E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Receptor totals and wghd totals	1	2.65E-07	0.00E+00													
	2	8.97E-07	0.00E+00													
	3	1.64E-06	0.00E+00													
	4	1.64E-06	0.00E+00													
	5	9.97E-08	4.99E-08													
	6	2.60E-07	1.30E-07													
	7	2.65E-07	0.00E+00													
TOTAL		1.80E-07														



Benzene		2.47E-07 =surface flux (ug/m2-sec)														
Receptor		N	NNE	NE	ENE	E	ESE	SE	SSE	SW	WSW	W	WNW	NW	NNW	
max. emission length (cm)																
1		0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	
2		0	0	0	0	0	0	0	1.05	0	0	0	0	0	0	
3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4		0	0	0	0	0	0	0	0	1.05	0	0	0	0	0	
5		0	0	0	0	0	0	0	0	0	0	0	0	0	1.05	
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7		0	0	0	0	0	1.05	0	0	0	0	0	0	0	0	
max. emission length (m)																
1		0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	
3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	
5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	
6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	
7		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Box Model Concentration (ug/m3)																
1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.11E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.72E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.40E-07	8.07E-07	0.00E+00	0.00E+00	0.00E+00	
5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.40E-07	
7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Direct.Wghtd Ambient Concentration (ug/m3)																
1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.12E-08	3.68E-08	0.00E+00	0.00E+00	0.00E+00	
5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.29E-08	
6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Receptor totals and wghtd totals																
1		3.60E-08	0.00E+00													
2		1.10E-07	0.00E+00													
3		4.32E-08	0.00E+00													
4		7.80E-08	0.00E+00													
5		3.29E-08	1.64E-08													
6		8.01E-09	4.01E-09													
7		3.60E-08	0.00E+00													
Benzene (ug/m3)	TOTAL															

## BLOOD-LEAD ANALYSIS RESULTS

# LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET

## Current Worker Scenario

INPUT		OUTPUT		
MEDIUM	LEVEL	BLOOD Pb, ADULT (ug/dl)		
LEAD IN AIR (ug/m <sup>3</sup> )	0.0354	50th percentile	95th percentile	99th percentile
LEAD IN SOIL (ug/g)	453.4	0.3	0.6	0.8
LEAD IN WATER (ug/l)	0			
SITE-GROWN PRODUCE?	0			

(1 = Yes; 0 = No)

### EQUATIONS, ADULTS

Blood Pb		Route-specific		concentration in medium	contact rate	percent of total
Pathway	ug/dl	constant				
SOIL CONTACT:	0.09 =	1E-04 (ug/dl)/(ug/day)		453 ug/g *	1.85 g soil/day (5 g/m <sup>2</sup> * 0.37 m <sup>2</sup> )	26%
SOIL INGESTION:	0.20 =	0.018 (ug/dl)/(ug/day)		453 ug/g *	0.025 g soil/day	58%
INHALATION:	0.06 =	1.64 (ug/dl)/(ug/m <sup>3</sup> )		0.04 ug/m <sup>3</sup>		17%
WATER INGESTION:	0.00 =	0.04 (ug/dl)/(ug/day)		15 ug/l *	1.4 l water/day	0%
FOOD INGESTION:	0.00 =	0.04 (ug/dl)/(ug/day)		10.0 ug Pb/kg diet *	0 kg diet/day	0%

LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET

Current Worker Scenario (with background)

INPUT		OUTPUT					
MEDIUM	LEVEL	BLOOD Pb, ADULT		50th percentile	95th percentile	99th percentile	
LEAD IN AIR (ug/m ^ 3)	0.215			(ug/dl)	2.6	4.7	6.0
LEAD IN SOIL (ug/g)	906.8						
LEAD IN WATER (ug/l)	15						
SITE-GROWN PRODUCE?	0						
(1 = Yes; 0 = No)							
EQUATIONS, ADULTS							
Blood Pb		Route-specific		concentration in medium	contact rate	percent of total	
Pathway	ug/dl	constant					
SOIL CONTACT:	0.18 =	1E-04 (ug/dl)/(ug/day)		907 ug/g *	1.85 g soil/day (5 g/m ^ 2 * 0.37 m ^ 2)		7%
SOIL INGESTION:	0.40 =	0.018 (ug/dl)/(ug/day)		907 ug/g *	0.025 g soil/day		15%
INHALATION:	0.35 =	1.64 (ug/dl)/(ug/m ^ 3)		0.22 ug/m ^ 3			13%
WATER INGESTION:	0.84 =	0.04 (ug/dl)/(ug/day)		15 ug/l *	1.4 l water/day		32%
FOOD INGESTION:	0.88 =	0.04 (ug/dl)/(ug/day)		10.0 ug Pb/kg diet *	2.2 kg diet/day		33%

# LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET

Current Off-site Residential Scenario

INPUT		OUTPUT			
MEDIUM	LEVEL	50th percentile		95th percentile	
LEAD IN AIR (ug/m ^ 3)	0	BLOOD Pb, ADULT (ug/dl)		0.1	
LEAD IN SOIL (ug/g)	53.56	BLOOD Pb, CHILD (ug/dl)		0.4	
LEAD IN WATER (ug/l)	0	BLOOD Pb, CHILD (ug/dl)		7.5	
SITE-GROWN PRODUCE?	1			9.6	
(1 = Yes; 0 = No)		(Pica)			

## EQUATIONS, ADULTS

Blood Pb	Route-specific constant	concentration in medium	contact rate	percent of total
Pathway	ug/dl			
SOIL CONTACT:	0.01 = 1E-04 (ug/dl)/(ug/day) *	54 ug/g *	1.85 g soil/day (5 g/m <sup>2</sup> * 0.37 m <sup>2</sup> )	31%
SOIL INGESTION:	0.02 = 0.018 (ug/dl)/(ug/day) *	54 ug/g *	0.03 g soil/day	69%
INHALATION:	0.00 = 1.64 (ug/dl)/(ug/m <sup>3</sup> ) *	0.00 ug/m <sup>3</sup>		0%
WATER INGESTION	0.00 = 0.04 (ug/dl)/(ug/day) *	0 ug/l *	1.4 l water/day	0%
FOOD INGESTION	0.00 = 0.04 (ug/dl)/(ug/day) *	0.00 ug Pb/kg diet *	2.2 kg diet/day	0%

## EQUATIONS, CHILDREN (TYPICAL)

Blood Pb	Route-specific constant	concentration in medium	contact rate	percent of total
Pathway	ug/dl			
SOIL CONTACT:	0.01 = 1E-04 (ug/dl)/(ug/day) *	54 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.28 m <sup>2</sup> )	4%
SOIL INGESTION:	0.21 = 0.07 (ug/dl)/(ug/day) *	54 ug/g *	0.06 g soil/day	96%
INHALATION:	0.00 = 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.00 ug/m <sup>3</sup>		0%
WATER INGESTION	0.00 = 0.16 (ug/dl)/(ug/day) *	0 ug/l *	0.4 l water/day	0%
FOOD INGESTION	0.00 = 0.16 (ug/dl)/(ug/day) *	0.00 ug Pb/kg diet *	1.3 kg diet/day	0%

## EQUATIONS, CHILDREN (PICA)

Blood Pb	Route-specific constant	concentration in medium	contact rate	percent of total
Pathway	ug/dl			
SOIL CONTACT:	0.01 = 1E-04 (ug/dl)/(ug/day) *	54 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.25 m <sup>2</sup> )	0%
SOIL INGESTION:	2.96 = 0.07 (ug/dl)/(ug/day) *	54 ug/g *	0.79 g soil/day	70%
INHALATION:	0.29 = 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.15 ug/m <sup>3</sup>		7%
WATER INGESTION	0.96 = 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	23%
FOOD INGESTION	0.00 = 0.16 (ug/dl)/(ug/day) *	0.00 ug Pb/kg diet *	1.3 kg diet/day	0%

## EQUATIONS, DIETARY LEAD

TOTAL DIETARY LEAD = 0.945 \* 0 + 0.055 \* Pb in produce (ug/kg) = 0.00 ug/kg

LEAD IN PRODUCE = 0.00045 \* soil lead = 0.0 ug/kg



# LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET

Current Off-site Residential Scenario (with background)

## INPUT

MEDIUM	LEVEL	50th percentile	95th percentile	99th percentile
LEAD IN AIR (ug/m <sup>3</sup> )	0			
LEAD IN SOIL (ug/g)	53.56	BLOOD Pb, ADULT (ug/dl)	2.0	3.6
LEAD IN WATER (ug/l)	0	BLOOD Pb, CHILD (ug/dl)	3.4	6.1
SITE-GROWN PRODUCE?	1	BLOOD Pb, CHILD (ug/dl)	6.2	11.0
(1 = Yes; 0 = No)		(Pica)		14.0

## EQUATIONS, ADULTS

Blood Pb	Pathway	ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:		0.01	= 1E-04 (ug/dl)/(ug/day) *	54 ug/g *	1.85 g soil/day (5 g/m <sup>2</sup> * 0.37 m <sup>2</sup> )	1%
SOIL INGESTION:		0.02	= 0.018 (ug/dl)/(ug/day) *	54 ug/g *	0.03 g soil/day	1%
INHALATION:		0.30	= 1.64 (ug/dl)/(ug/m <sup>3</sup> ) *	0.18 ug/m <sup>3</sup>		15%
WATER INGESTION		0.84	= 0.04 (ug/dl)/(ug/day) *	15 ug/l *	1.4 l water/day	42%
FOOD INGESTION:		0.83	= 0.04 (ug/dl)/(ug/day) *	9.5 ug Pb/kg diet *	2.2 kg diet/day	42%

## EQUATIONS, CHILDREN (TYPICAL)

Blood Pb	Pathway	ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:		0.01	= 1E-04 (ug/dl)/(ug/day) *	54 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.28 m <sup>2</sup> )	0%
SOIL INGESTION:		0.21	= 0.07 (ug/dl)/(ug/day) *	54 ug/g *	0.06 g soil/day	6%
INHALATION:		0.29	= 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.15 ug/m <sup>3</sup>		8%
WATER INGESTION		0.96	= 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	28%
FOOD INGESTION:		1.97	= 0.16 (ug/dl)/(ug/day) *	9.5 ug Pb/kg diet *	1.3 kg diet/day	57%

## EQUATIONS, CHILDREN (PICA)

Blood Pb	Pathway	ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:		0.01	= 1E-04 (ug/dl)/(ug/day) *	54 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.25 m <sup>2</sup> )	0%
SOIL INGESTION:		2.96	= 0.07 (ug/dl)/(ug/day) *	54 ug/g *	0.79 g soil/day	48%
INHALATION:		0.29	= 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.15 ug/m <sup>3</sup>		5%
WATER INGESTION		0.96	= 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	16%
FOOD INGESTION:		1.97	= 0.16 (ug/dl)/(ug/day) *	9.5 ug Pb/kg diet *	1.3 kg diet/day	32%

## EQUATIONS, DIETARY LEAD

TOTAL DIETARY LEAD = 0.945 \* 10 + 0.055 \* Pb in produce (ug/kg) = 9.5 ug/kg  
 LEAD IN PRODUCE = 10 ug/kg or 0.00045 \* soil lead = 0.0 ug/kg

# LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET

Hypothetical On-site Residential Scenario (average concentration)

INPUT OUTPUT

MEDIUM	LEVEL	50th percentile	95th percentile	99th percentile
LEAD IN AIR (ug/m ^ 3)	0			
LEAD IN SOIL (ug/g)	756.7			
LEAD IN WATER (ug/l)	0			
SITE-GROWN PRODUCE?	1			
(1 = Yes; 0 = No)				

## EQUATIONS, ADULTS

Pathway	Blood Pb	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.15	= 1E-04 (ug/dl)/(ug/day) *	757 ug/g *	1.85 g soil/day (5 g/m ^ 2 * 0.37 m ^ 2)	31%
SOIL INGESTION:	0.33	= 0.018 (ug/dl)/(ug/day) *	757 ug/g *	0.03 g soil/day	69%
INHALATION:	0.00	= 1.64 (ug/dl)/(ug/m ^ 3) *	0.00 ug/m ^ 3		0%
WATER INGESTION	0.00	= 0.04 (ug/dl)/(ug/day) *	0 ug/l *	1.4 l water/day	0%
FOOD INGESTION	0.002	= 0.04 (ug/dl)/(ug/day) *	0.02 ug Pb/kg diet *	2.2 kg diet/day	0%

## EQUATIONS, CHILDREN (TYPICAL)

Pathway	Blood Pb	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.11	= 1E-04 (ug/dl)/(ug/day) *	757 ug/g *	1.4 g soil/day (5 g/m ^ 2 * 0.28 m ^ 2)	4%
SOIL INGESTION:	2.93	= 0.07 (ug/dl)/(ug/day) *	757 ug/g *	0.06 g soil/day	93%
INHALATION:	0.00	= 1.92 (ug/dl)/(ug/m ^ 3) *	0.00 ug/m ^ 3		0%
WATER INGESTION	0.00	= 0.16 (ug/dl)/(ug/day) *	0 ug/l *	0.4 l water/day	0%
FOOD INGESTION	0.00	= 0.16 (ug/dl)/(ug/day) *	0.0 ug Pb/kg diet *	1.3 kg diet/day	0%

## EQUATIONS, CHILDREN (PICA)

Pathway	Blood Pb	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.11	= 1E-04 (ug/dl)/(ug/day) *	757 ug/g *	1.4 g soil/day (5 g/m ^ 2 * 0.25 m ^ 2)	0%
SOIL INGESTION:	41.86	= 0.07 (ug/dl)/(ug/day) *	757 ug/g *	0.79 g soil/day	97%
INHALATION:	0.29	= 1.92 (ug/dl)/(ug/m ^ 3) *	0.15 ug/m ^ 3		1%
WATER INGESTION	0.96	= 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	2%
FOOD INGESTION	0.00	= 0.16 (ug/dl)/(ug/day) *	0.0 ug Pb/kg diet *	1.3 kg diet/day	0%

## EQUATIONS, DIETARY LEAD

TOTAL DIETARY LEAD = 0.945 \* 0 + 0.055 \* Pb in produce (ug/kg) = 0.02 ug/kg

LEAD IN PRODUCE = 0.00045 \* soil lead = 0.3 ug/kg

# LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET Hypothetical On-site Residential Scenario (with background)(average concentration)

INPUT		OUTPUT			
MEDIUM	LEVEL	50th percentile		95th percentile	
LEAD IN AIR (ug/m <sup>3</sup> )	0				
LEAD IN SOIL (ug/g)	756.7				
LEAD IN WATER (ug/l)	0				
SITE-GROWN PRODUCE?	1				
(1 = Yes; 0 = No)					

EQUATIONS, ADULTS		Route-specific		concentration		percent of total
Blood Pb	Pathway	ug/dl	constant	in medium	contact rate	
SOIL CONTACT:	0.15 = 1E-04 (ug/dl)/(ug/day) *			757 ug/g *	1.85 g soil/day (5 g/m <sup>2</sup> * 0.37 m <sup>2</sup> )	6%
SOIL INGESTION:	0.33 = 0.018 (ug/dl)/(ug/day) *			757 ug/g *	0.03 g soil/day	14%
INHALATION:	0.30 = 1.64 (ug/dl)/(ug/m <sup>3</sup> ) *			0.18 ug/m <sup>3</sup>		12%
WATER INGESTION	0.84 = 0.04 (ug/dl)/(ug/day) *			15 ug/l *	1.4 l water/day	34%
FOOD INGESTION:	0.83 = 0.04 (ug/dl)/(ug/day) *			9.5 ug Pb/kg diet *	2.2 kg diet/day	34%

EQUATIONS, CHILDREN (TYPICAL)		Route-specific		concentration		percent of total
Blood Pb	Pathway	ug/dl	constant	in medium	contact rate	
SOIL CONTACT:	0.11 = 1E-04 (ug/dl)/(ug/day) *			757 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.28 m <sup>2</sup> )	2%
SOIL INGESTION:	2.93 = 0.07 (ug/dl)/(ug/day) *			757 ug/g *	0.06 g soil/day	47%
INHALATION:	0.29 = 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *			0.15 ug/m <sup>3</sup>		5%
WATER INGESTION	0.96 = 0.16 (ug/dl)/(ug/day) *			15 ug/l *	0.4 l water/day	15%
FOOD INGESTION:	1.97 = 0.16 (ug/dl)/(ug/day) *			9.5 ug Pb/kg diet *	1.3 kg diet/day	31%

EQUATIONS, CHILDREN (PICA)		Route-specific		concentration		percent of total
Blood Pb	Pathway	ug/dl	constant	in medium	contact rate	
SOIL CONTACT:	0.11 = 1E-04 (ug/dl)/(ug/day) *			757 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.25 m <sup>2</sup> )	0%
SOIL INGESTION:	41.86 = 0.07 (ug/dl)/(ug/day) *			757 ug/g *	0.79 g soil/day	93%
INHALATION:	0.29 = 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *			0.15 ug/m <sup>3</sup>		1%
WATER INGESTION	0.96 = 0.16 (ug/dl)/(ug/day) *			15 ug/l *	0.4 l water/day	2%
FOOD INGESTION:	1.97 = 0.16 (ug/dl)/(ug/day) *			9.5 ug Pb/kg diet *	1.3 kg diet/day	4%

EQUATIONS, DIETARY LEAD  
TOTAL DIETARY LEAD = 0.945 \* 10 + 0.055 \* Pb in produce (ug/kg) = 9.5 ug/kg  
LEAD IN PRODUCE = 10 ug/kg or 0.00045 \* soil lead = 0.3 ug/kg

# LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET Hypothetical On-site Residential Scenario (MAXIMUM CONCENTRATION)

INPUT OUTPUT

MEDIUM	LEVEL	50th percentile	95th percentile	99th percentile
LEAD IN AIR (ug/m <sup>3</sup> )	0			
LEAD IN SOIL (ug/g)	1400			
LEAD IN WATER (ug/l)	0			
SITE-GROWN PRODUCE?	1			
(1 = Yes; 0 = No)				
BLOOD Pb, ADULT (ug/dl)		0.9	1.6	2.0
BLOOD Pb, CHILD (ug/dl)		5.6	10.0	12.8
BLOOD Pb, CHILD (Pica) (ug/dl)		78.9	140.2	178.6

## EQUATIONS, ADULTS

Pathway	Blood Pb ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.27	= 1E-04 (ug/dl)/(ug/day) *	1400 ug/g *	1.85 g soil/day (5 g/m <sup>2</sup> * 0.37 m <sup>2</sup> )	31%
SOIL INGESTION:	0.62	= 0.018 (ug/dl)/(ug/day) *	1400 ug/g *	0.03 g soil/day	69%
INHALATION:	0.00	= 1.64 (ug/dl)/(ug/m <sup>3</sup> ) *	0.00 ug/m <sup>3</sup>		0%
WATER INGESTION:	0.00	= 0.04 (ug/dl)/(ug/day) *	0 ug/l *	1.4 l water/day	0%
FOOD INGESTION:	0.003	= 0.04 (ug/dl)/(ug/day) *	0.03 ug Pb/kg diet *	2.2 kg diet/day	0%

## EQUATIONS, CHILDREN (TYPICAL)

Pathway	Blood Pb ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.21	= 1E-04 (ug/dl)/(ug/day) *	1400 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.28 m <sup>2</sup> )	4%
SOIL INGESTION:	5.42	= 0.07 (ug/dl)/(ug/day) *	1400 ug/g *	0.06 g soil/day	96%
INHALATION:	0.00	= 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.00 ug/m <sup>3</sup>		0%
WATER INGESTION:	0.00	= 0.16 (ug/dl)/(ug/day) *	0 ug/l *	0.4 l water/day	0%
FOOD INGESTION:	0.01	= 0.16 (ug/dl)/(ug/day) *	0.0 ug Pb/kg diet *	1.3 kg diet/day	0%

## EQUATIONS, CHILDREN (PICA)

Pathway	Blood Pb ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.21	= 1E-04 (ug/dl)/(ug/day) *	1400 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.25 m <sup>2</sup> )	0%
SOIL INGESTION:	77.44	= 0.07 (ug/dl)/(ug/day) *	1400 ug/g *	0.79 g soil/day	98%
INHALATION:	0.29	= 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.15 ug/m <sup>3</sup>		0%
WATER INGESTION:	0.96	= 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	1%
FOOD INGESTION:	0.01	= 0.16 (ug/dl)/(ug/day) *	0.0 ug Pb/kg diet *	1.3 kg diet/day	0%

## EQUATIONS, DIETARY LEAD

TOTAL DIETARY LEAD = 0.945 \* 0 + 0.055 \* Pb in produce (ug/kg) = 0.03 ug/kg  
LEAD IN PRODUCE = 0.00045 \* soil lead = 0.6 ug/kg

LEADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEET  
Hypothetical On-site Residential Scenario (with background)(MAXIMUM CONCENTRATION)

INPUT		OUTPUT			
MEDIUM	LEVEL	50th percentile		95th percentile	
LEAD IN AIR (ug/m <sup>3</sup> )	0				
LEAD IN SOIL (ug/g)	1400	BLOOD Pb, ADULT (ug/dl)		5.1	
LEAD IN WATER (ug/l)	0	BLOOD Pb, CHILD (ug/dl)		15.7	
SITE-GROWN PRODUCE?	1	BLOOD Pb, CHILD (ug/dl)		143.7	
(1 = Yes; 0 = No)		(Pica)		183.1	

EQUATIONS, ADULTS

Blood Pb		Route-specific		concentration		percent	
Pathway	ug/dl	constant	in medium	contact rate	of total		
SOIL CONTACT:	0.27	= 1E-04 (ug/dl)/(ug/day) *	1400 ug/g *	1.85 g soil/day (5 g/m <sup>2</sup> * 0.37 m <sup>2</sup> )	10%		
SOIL INGESTION:	0.62	= 0.018 (ug/dl)/(ug/day) *	1400 ug/g *	0.03 g soil/day	22%		
INHALATION:	0.30	= 1.64 (ug/dl)/(ug/m <sup>3</sup> ) *	0.18 ug/m <sup>3</sup>		10%		
WATER INGESTION	0.84	= 0.04 (ug/dl)/(ug/day) *	15 ug/l *	1.4 l water/day	29%		
FOOD INGESTION:	0.53	= 0.04 (ug/dl)/(ug/day) *	9.5 ug Pb/kg diet *	2.2 kg diet/day	29%		

EQUATIONS, CHILDREN (TYPICAL)

Blood Pb		Route-specific		concentration		percent	
Pathway	ug/dl	constant	in medium	contact rate	of total		
SOIL CONTACT:	0.21	= 1E-04 (ug/dl)/(ug/day) *	1400 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.28 m <sup>2</sup> )	2%		
SOIL INGESTION:	5.42	= 0.07 (ug/dl)/(ug/day) *	1400 ug/g *	0.06 g soil/day	61%		
INHALATION:	0.29	= 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.15 ug/m <sup>3</sup>		3%		
WATER INGESTION	0.96	= 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	11%		
FOOD INGESTION:	1.97	= 0.16 (ug/dl)/(ug/day) *	9.5 ug Pb/kg diet *	1.3 kg diet/day	22%		

EQUATIONS, CHILDREN (PICA)

Blood Pb		Route-specific		concentration		percent	
Pathway	ug/dl	constant	in medium	contact rate	of total		
SOIL CONTACT:	0.21	= 1E-04 (ug/dl)/(ug/day) *	1400 ug/g *	1.4 g soil/day (5 g/m <sup>2</sup> * 0.25 m <sup>2</sup> )	0%		
SOIL INGESTION:	77.44	= 0.07 (ug/dl)/(ug/day) *	1400 ug/g *	0.79 g soil/day	96%		
INHALATION:	0.29	= 1.92 (ug/dl)/(ug/m <sup>3</sup> ) *	0.15 ug/m <sup>3</sup>		0%		
WATER INGESTION	0.96	= 0.16 (ug/dl)/(ug/day) *	15 ug/l *	0.4 l water/day	1%		
FOOD INGESTION:	1.97	= 0.16 (ug/dl)/(ug/day) *	9.5 ug Pb/kg diet *	1.3 kg diet/day	2%		

EQUATIONS, DIETARY LEAD

TOTAL DIETARY LEAD = 0.945 \* 10 + 0.055 \* Pb in produce (ug/kg) = 9.5 ug/kg  
LEAD IN PRODUCE = 10 ug/kg or 0.00045 \* soil lead = 0.6 ug/kg

McCLELLAN AFB

OUB Percent Hexavalent Chromium Calculation

FILE: CRVI.WQ1

Author: FOW 4-14-93 QA: *[Signature]*

Sample ID	Chromium VI (mg/kg)			Total Chromium (mg/kg)	Percent Chromium VI
	Result	RL	Result/ 1/2RL(a)		
IC01SS007101N	ND	0.065	0.0325	37	0.088
IC01SS000101N	ND	0.068	0.034	20	0.170
IC01SS000201N	ND	0.062	0.031	32	0.097
IC01SS000301N	ND	0.066	0.033	53	0.062
IC01SS000401N	ND	0.067	0.0335	30	0.112
IC01SS000501N	ND	0.071	0.0355	28	0.127
IC01SS000601N	ND	0.066	0.033	19	0.174
IC01SS000701N	ND	0.067	0.0335	44	0.076
IC01SB800301N	ND	0.071	0.0355	22	0.161
IC01SB800302N	ND	0.067	0.0335	22	0.152
IC01SB800303N	ND	0.07	0.035	63	0.056
IC05SS221301N	ND	0.062	0.031	37	0.084
IC05SS003401N	ND	0.079	0.0395	60	0.066
IC07SS011701N	ND	0.063	0.0315	32	0.098
IC07SS011901N	ND	0.063	0.0315	35	0.090
IC07SS000101N	ND	0.069	0.0345	23	0.150
IC07SS000201N	ND	0.066	0.033	26	0.127
IC07SS000301N	ND	0.069	0.0345	27	0.128
IC07SS000401N	ND	0.062	0.031	33	0.094
IC07SS000501N	ND	0.067	0.0335	23	0.146
IC08SS000101N	ND	0.068	0.034	33	0.103
IC08SS004101N	ND	0.064	0.032	36	0.089
average					0.111
minimum					0.056
maximum					0.174

a-if result was ND, chromium VI was assumed to be present at 1/2 the RL.

McClellan OU B1 HRA

Current Residential Scenario

PM10 Ambient Air and Soil Concentrations

PCB Ambient Vapor Concentrations

Author: *AM 5-10-93*

QA: *Re 5-10-93*

#### Source to Receptor Distance Calculation

96.15385	=	Figure Scale (ft/cm)
8.3	=	Length of DRMO N-S Building on Figure (cm)
798.0769	=	Length of DRMO N-S Building (ft)
2.9	=	Length of DRMO N-S Building on Photo (cm)
275.1989	=	Scale on Photo (ft/cm)
1.65	=	Distance to Nearest Residence on Photo (cm)
454.0782	=	Distance to Nearest Residence on Photo (ft)
0.3048	=	(m/ft)
138.4031	=	Distance to Nearest Residence on Photo (m)

#### Calculation of Deposition Flux

5.11	=	PM10 Emission Flux (ug/m2-s) (a)
30320.59	=	Area of Emissions (m2)
1E-06	=	(g/ug)
0.154938	=	PM10 Emission Rate (g/s) (a)
0.00085	=	PCB vapor flux (ug/m2-s)
2.58E-05	=	PCB vapor flux (g/s)
2302	=	Max. 1-hr Unit Ground Level Concentration at 140 meters [(ug/m3)/(g/s)] (b)
3.57E-04	=	Max 1-hr PM10 Ambient Air PM10 Concentration (g/m3)
0.1	=	Max. 1-hr to Annual Average Conversion Factor
3.57E-05	=	Annual Average Ambient Air PM10 Concentration (g/m3)
5.93E-03	=	Annual Average Ambient Air PCB Vapor Concentration (ug/m3)
0.02	=	PM10 Deposition Rate (m/s)
31536000	=	(sec/yr)
1000	=	(mg/g)
1333	=	Soil Density (kg/m3) (c)
3937.74	=	Average 70-yr. PM10 Concentration in Top 15 cm (mg/kg)
59066.11	=	Average 70-yr. PM10 Concentration in Top 1 cm (mg/kg)

a- From attached calc sheets

b- From Screen model output

c- Clement, 1988

McClellan OU B1 HRA  
Hypothetical Residential Scenario  
Comparison of Maximum and 95UCL: PCBs and Inorganic COCs  
Author: FOW 5-9-93  
QA: LDL 5-10-93

PCB mg/kg	In
150	5.010635 6.943496 = avg In
29	3.367296 3.857285 = std In
5	1.609438 10 = N
28	3.332205 10.38 = H
38	3.637586 1.1E+12 = 95ucl
16500	9.711116 1.00E+05 = Max
30000	10.30895 22075 = avg.
100000	11.51293
48000	10.77896
26000	10.16585

	Average	Maximum	95UCL (b)	H47 (mg/kg)	H48 (mg/kg)	H58 (mg/kg)	In H47	In H48	In H58	H	N	Avg. In	Std. In
Arsenic	8.4	13	86.81685	4.8	13	7.4	1.568616	2.564949	2.00148	6.495	3	2.045015	0.499591
Cadmium	5.666667	6	6.289906	5.6	6	5.4	1.722767	1.791759	1.686399	2.75	3	1.733642	0.053516
Chromium	94.33333	160	2633.877	50	160	73	3.912023	5.075174	4.290459	7.807	3	4.425885	0.593283
Copper	60.33333	92	2061.672	27	92	62	3.295837	4.521789	4.127134	7.807	3	3.981587	0.625801
Mercury	0.3	0.35	NC	NR	0.25	0.35	NC	-1.38629	-1.04982	(a)	2	-1.21806	0.237922
Molybdenum	2.266667	3.3	11.38648	1.4	3.3	2.1	0.336472	1.193922	0.741937	5.22	3	0.757444	0.428935
Selenium	10.2	11	13.49079	8.6	11	11	2.151762	2.397895	2.397895	2.75	3	2.315851	0.142105
Silver	2.433333	4.1	78.22171	2	4.1	1.2	0.693147	1.410387	0.182322	7.807	3	0.762152	0.617232
Zinc	212	360	331399.6	66	360	210	4.189655	5.886104	5.347108	11.74	3	5.140955	0.86681
Lead	756.6667	1400	369699.6	270	1400	600	5.598422	7.244228	6.39693	10.43	3	6.413193	0.823023

H82-not analyzed for inorganics

B32-shallowest metal sample 4.7 ft

Inorganics by 6010 except: Arsenic-7060, Lead-7421, Selenium-7740, Mercury-7470

a-not on H table

b-OSWER Publication 9285.7-081. Calculating the Concentration Term

NC-not calculated

NR-not analyzed



McClellan AFB OUB1 HRA  
File:dustscrn.wq1 fow,2-18-91

Algorithm Source:

Forklift Dust Generation

Emissions	
Chemical	Factor Flux (kg/V-km) (ug/m2-sec)
PM-10	0.034 5.11E+00

0.36 = k : dimensionless particle size multiplier for particles < 10um (AP-42)  
5 = s (wt. %) silt content of surface material (gravel road) (AP-42)  
5.2942857 = S (km/hr) mean vehicle speed (km per day/7hours)  
5 = W (metric tons) mean vehicle weight, small fork lift (Dean pers. comm. 1992)  
4 = w number of wheels/vehicle  
75 = p number of days/year with at least .254 mm (0.01 in.) of precipitation (AP-42)  
3.5 = Number of forklifts (DvD.pers comm, 1993)  
37.06 = Kilometers driven per forklift per 8 hour day (20 miles)(DvD,pers.comm. 1993)  
28800 = seconds/8 hours  
30320.589 = Size of DRMO Area (square meters)326,378.78ft2(gmh) \* .0929

U.S.EPA 1991. Supplement D to Compilation of Air Pollutant Emission Factors  
Volume 1. Document AP-42

5-9-93

Data summ. and rate

OUB 1 covered w/ low perm. layer - PCB model run

$$\text{Area modeled} = \pi (15\text{m})^2 = 707\text{m}^2$$

Mass loss to air

Kg 5yr. interval

Years

0-5	$8.3 \times 10^{-3}$
5-10	$8.9 \times 10^{-3}$
10-15	$9.1 \times 10^{-3}$
15-20	$9.3 \times 10^{-3}$
20-25	$9.5 \times 10^{-3}$
25-30	$9.7 \times 10^{-3}$
Total	$5.5 \times 10^{-2}$

Mass loss / sec m<sup>2</sup>

Kg/m<sup>2</sup>sec (5yrs)

$7.4 \times 10^{-14}$
$8.0 \times 10^{-14}$
$8.2 \times 10^{-14}$
$8.3 \times 10^{-14}$
$8.5 \times 10^{-14}$
$8.7 \times 10^{-14}$
$8.2 \times 10^{-14}$

AW

$$8.2 \times 10^{-14} \text{ kg/m}^2\text{-sec} \times 10^9 \frac{\text{kg}}{\text{kg}} \\ = 8.2 \times 10^{-5} \text{ ug/m}^2\text{-sec}$$

TFC 5-9-93

Data summary / calculations  
 OUB 1 Uncovered - PCB model run:  
 Loss of vapor to air and infiltration

$$\text{Area modeled} = \pi (15\text{m})^2 = 707\text{m}^2$$

Years	Mass Loss to Air (kg) 5 year intervals	Mass loss air/sec (5 year interval)	Mass loss air/sec m <sup>2</sup> (5 year interval)
0-5	$9.9 \times 10^{-2}$	$6.3 \times 10^{-10}$	$8.9 \times 10^{-13}$
5-10	$9.7 \times 10^{-2}$	$6.2 \times 10^{-10}$	$8.7 \times 10^{-13}$
10-15	$9.5 \times 10^{-2}$	$6.0 \times 10^{-10}$	$8.5 \times 10^{-13}$
15-20	$9.3 \times 10^{-2}$	$5.9 \times 10^{-10}$	$8.3 \times 10^{-13}$
20-25	$9.2 \times 10^{-2}$	$5.8 \times 10^{-10}$	$8.3 \times 10^{-13}$
25-30	$9.1 \times 10^{-2}$	$5.8 \times 10^{-10}$	$8.2 \times 10^{-13}$
Total	$5.7 \times 10^{-1}$	$6.0 \times 10^{-10}$	$8.5 \times 10^{-13}$

$$\text{AV} \quad 8.5 \times 10^{-13} \text{ kg/m}^2\text{-s} \times 10^9 \frac{\text{ug}}{\text{kg}} \\ = 8.5 \times 10^{-4} \text{ ug/m}^2\text{-sec}$$

TFC 5-9-93

Data Summary and calculations  
 OUB 1 TCE VZM results  
 Comparison Low perm. cap to uncapped

$$\text{Area modeled} = \pi (11\text{m})^2 = 380\text{m}^2$$

	<u>Uncovered</u> Mass loss to air (Kg) 5yr intervals	Low perm. cover. Mass loss to air Kg
Years		
0-5	$2.8 \times 10^{-2}$	$2.12 \times 10^{-2}$
5-10	$3.7 \times 10^{-2}$	$2.12 \times 10^{-2}$
10-15	$6.8 \times 10^{-2}$	$2.12 \times 10^{-2}$
15-20	$7.7 \times 10^{-2}$	$2.12 \times 10^{-2}$
20-25	$3.7 \times 10^{-2}$	$2.12 \times 10^{-2}$
25-30	$3.6 \times 10^{-2}$	$2.12 \times 10^{-2}$
Total	$2.8 \times 10^{-1}$	$1.27 \times 10^{-1}$

No measurable loss to gw for  
 either case

5-5-93 TPC

Benzene migration data in OUB 1 uncapped

Concentrations in leachate (cap. fringe) and surface air summarized by 5-year interval on attached page

Other data

$$\text{Area} = \pi (30\text{m})^2 = 2827\text{m}^2$$

Soil gas concentrations from soil  $\text{cmc} = 2\mu\text{g/kg}$   
and gas  $\text{cmc} = 37\text{ppbv}$

All concentrations assumed on east side-OUB

	Mass loss to air	Mass loss/sec	Mass loss/sec $\text{m}^2$
Peak 10-15	$4.2 \times 10^{-4} \text{kg}$	$2.7 \times 10^{-12} \text{kg/sec}$	$9.4 \times 10^{-16}$
0-50yr.	$1.1 \times 10^{-3} \text{kg}$	$7.0 \times 10^{-13} \text{kg/sec}$	$2.5 \times 10^{-16}$

Note: units in kg, kg/sec, kg/sec  $\text{m}^2$

No measurable loss to groundwater

04-28-93  
09:07:31

\*\*\* SCREEN-1.1 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 88300 \*\*\*

OU B1 Screen Model Near-by Impact Analysis

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/S) = 1.000  
SOURCE HEIGHT (M) = .50  
LENGTH OF SIDE (M) = 174.00  
RECEPTOR HEIGHT (M) = .00  
IOPT (1=URB,2=RUR) = 2

BUOY. FLUX = .00 M\*\*4/S\*\*3; MOM. FLUX = .00 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
100.	3082.	6	1.0	1.0	5000.0	.5	43.4	2.3	NO
200.	1664.	6	1.0	1.0	5000.0	.5	46.4	4.1	NO
300.	1142.	6	1.0	1.0	5000.0	.5	49.4	5.6	NO
400.	860.7	6	1.0	1.0	5000.0	.5	52.3	7.0	NO
500.	684.6	6	1.0	1.0	5000.0	.5	55.3	8.4	NO
600.	563.8	6	1.0	1.0	5000.0	.5	58.2	9.7	NO
700.	476.0	6	1.0	1.0	5000.0	.5	61.1	10.9	NO
800.	414.9	6	1.0	1.0	5000.0	.5	64.0	12.0	NO
900.	366.3	6	1.0	1.0	5000.0	.5	66.9	13.0	NO
1000.	326.8	6	1.0	1.0	5000.0	.5	69.8	14.0	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 100. M:

100.	3082.	6	1.0	1.0	5000.0	.5	43.4	2.3	NO
------	-------	---	-----	-----	--------	----	------	-----	----

DWASH= MEANS NO CALC MADE (CONC = 0.0)  
DWASH=NO MEANS NO BUILDING DOWNWASH USED  
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED  
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED  
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3\*LB

\*\*\*\*\*  
\*\*\* SCREEN DISCRETE DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
110.	2842.	6	1.0	1.0	5000.0	.5	43.7	2.5	NO
120.	2636.	6	1.0	1.0	5000.0	.5	44.0	2.7	NO
130.	2457.	6	1.0	1.0	5000.0	.5	44.3	2.9	NO
140.	2302.	6	1.0	1.0	5000.0	.5	44.6	3.1	NO
150.	2164.	6	1.0	1.0	5000.0	.5	44.9	3.2	NO
160.	2042.	6	1.0	1.0	5000.0	.5	45.2	3.4	NO
170.	1933.	6	1.0	1.0	5000.0	.5	45.5	3.6	NO
175.	1882.	6	1.0	1.0	5000.0	.5	45.6	3.7	NO

- RUN w/ RURAL DISPERSION

- BY 10 TO 100 FT ANNUAL AVG

180.	1834.	6	1.0	1.0	5000.0	.5	45.8	3.8	NO
190.	1745.	6	1.0	1.0	5000.0	.5	46.1	3.9	NO
195.	1703.	6	1.0	1.0	5000.0	.5	46.2	4.0	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)  
 DWASH=NO MEANS NO BUILDING DOWNWASH USED  
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED  
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED  
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE,  $X < 3 \cdot L_B$

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	3082.	100.	0.

\*\*\*\*\*  
 \*\* REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS \*\*  
 \*\*\*\*\*

04-28-93  
09:04:52

\*\*\* SCREEN-1.1 MODEL RLM \*\*\*  
\*\*\* VERSION DATED 88300 \*\*\*

OU B1 SCREEN Model Run

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/S) = 1.000  
SOURCE HEIGHT (M) = .50  
LENGTH OF SIDE (M) = 174.00  
RECEPTOR HEIGHT (M) = .00  
IOPT (1=URB,2=RUR) = 2

BUOY. FLUX = .00 M\*\*4/S\*\*3; MOM. FLUX = .00 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
100.	3082.	6	1.0	1.0	5000.0	.5	43.4	2.3	NO
200.	1664.	6	1.0	1.0	5000.0	.5	46.4	4.1	NO
300.	1142.	6	1.0	1.0	5000.0	.5	49.4	5.6	NO
400.	860.7	6	1.0	1.0	5000.0	.5	52.3	7.0	NO
500.	684.6	6	1.0	1.0	5000.0	.5	55.3	8.4	NO
600.	563.8	6	1.0	1.0	5000.0	.5	58.2	9.7	NO
700.	476.0	6	1.0	1.0	5000.0	.5	61.1	10.9	NO
800.	414.9	6	1.0	1.0	5000.0	.5	64.0	12.0	NO
900.	366.3	6	1.0	1.0	5000.0	.5	66.9	13.0	NO
1000.	326.8	6	1.0	1.0	5000.0	.5	69.8	14.0	NO
1100.	295.6	6	1.0	1.0	5000.0	.5	72.6	14.8	NO
1200.	269.3	6	1.0	1.0	5000.0	.5	75.4	15.7	NO
1300.	246.8	6	1.0	1.0	5000.0	.5	78.3	16.5	NO
1400.	227.3	6	1.0	1.0	5000.0	.5	81.1	17.3	NO
1500.	210.3	6	1.0	1.0	5000.0	.5	83.9	18.0	NO
1600.	195.4	6	1.0	1.0	5000.0	.5	86.7	18.8	NO
1700.	182.2	6	1.0	1.0	5000.0	.5	89.5	19.5	NO
1800.	170.5	6	1.0	1.0	5000.0	.5	92.2	20.2	NO
1900.	160.0	6	1.0	1.0	5000.0	.5	95.0	20.9	NO
2000.	150.5	6	1.0	1.0	5000.0	.5	97.8	21.6	NO
2100.	142.6	6	1.0	1.0	5000.0	.5	100.5	22.2	NO
2200.	135.3	6	1.0	1.0	5000.0	.5	103.2	22.8	NO
2300.	128.7	6	1.0	1.0	5000.0	.5	106.0	23.3	NO
2400.	122.6	6	1.0	1.0	5000.0	.5	108.7	23.9	NO
2500.	117.0	6	1.0	1.0	5000.0	.5	111.4	24.4	NO
2600.	111.8	6	1.0	1.0	5000.0	.5	114.1	25.0	NO
2700.	107.0	6	1.0	1.0	5000.0	.5	116.8	25.5	NO
2800.	102.5	6	1.0	1.0	5000.0	.5	119.5	26.0	NO
2900.	98.37	6	1.0	1.0	5000.0	.5	122.2	26.5	NO
3000.	94.51	6	1.0	1.0	5000.0	.5	124.8	27.0	NO
3500.	79.52	6	1.0	1.0	5000.0	.5	138.1	29.0	NO
4000.	68.26	6	1.0	1.0	5000.0	.5	151.2	30.8	NO
4500.	59.52	6	1.0	1.0	5000.0	.5	164.2	32.6	NO
5000.	52.57	6	1.0	1.0	5000.0	.5	177.0	34.2	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 100. M:

100.	3082.	6	1.0	1.0	5000.0	.5	43.4	2.3	NO
------	-------	---	-----	-----	--------	----	------	-----	----



DWASH= MEANS NO CALC MADE (CONC = 0.0)  
 DWASH=NO MEANS NO BUILDING DOWNWASH USED  
 DWASH=HS MEANS HUBER-SHYDER DOWNWASH USED  
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED  
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE,  $X < 3^{\circ}LB$

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	3032.	100.	0.

\*\*\*\*\*  
 \*\* REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS \*\*  
 \*\*\*\*\*

VTA, CDM

[11] From: Charles Miller 2/15/93 4:12PM (1904 bytes: 26 ln)

To: Fred Weyman

Subject: Phone Contact Report: Don Van Dyke

----- Forwarded -----

From: Fred Weyman 2/9/93 12:15PM (1728 bytes: 26 ln)

To: Victor Auvinen, Charles Miller

Subject: Phone Contact Report: Don Van Dyke

----- Message Contents -----

Don gave me lots of good information which we will be able to include in the risk assessment, including:

- Forklift operators spent less than 1% of their time inside the fenced arrea before it was covered with plastic.
- Forklift operators spend approximately 30% of their driving time in the area east of the fenced area and 70% of the time in the area south of the fenced area (very close to your estimates Vic!)
- forklift operators spend approximately 75% of their workday on the lifts, in the yard. The remaining 25% they spend in the adjacent (to the west) building.
- Don estimated that operators wear long sleeves approximately half of the year, t-shirts the other half, long pants always, (I'm going to call about gloves).
- Don said that visible dust plumes occur regularly (1-2 times per week) at the DRMO.
- He said that the maximum forklift speed is 5 mph, he thought the 4 mph might be a good average.
- He confirmed that the weight of his most frequently used lift is 11,300 lbs (5.1 metric tons)
- He estimated that the lifts drive approximately 20 miles/day. This is significantly different from the 2000 ft that we used in the TCDD screening assessment. I'll be sure that the distance traveled, average speed and time spent on lifts are consistent in our assessment.

2-16-93 UPDATE

I FAXED DON A MAP OF DRMO WITH DIFFERENT ZONES DELINEATED. WE AGREED UPON TIME DISTRIBUTIONS AMONG THE 16 ZONES. HE ALSO INDICATED WHERE IN THE ZONES ~~ONE~~ FORKLIFT OPERATORS SPENT MOST OF THEIR TIME. THIS INFORMATION WILL BE INCLUDED IN THE AIRBORNE DUST AND VAPORS EXPOSURE CALCS.

DON ALSO CLARIFIED HIS DESCRIPTION OF THE VISIBLE DUST OCCURENCES. HE SAID THAT FORKLIFTS GENERATE MORE DUST THAN THE WIND, AND THAT VISIBLE PLUMES OCCUR REGULARLY WHEN THE SOIL IS DRY.

## APPENDIX E

### ARARs Identification

## 1.0 INTRODUCTION

The purpose of this appendix is to provide more detailed information on ARARs to support the ARARs subsection (Section 5.2) in the OU B1 RI/FS report. Additional OU B1-specific information is presented in the document, "Technical Memorandum, ARAR Identification for CERCLA Actions, McClellan AFB," December 1992 (Radian, 1992).

Under Section 121(d)(1) of CERCLA, remedial actions must attain a degree of cleanup which assures protection of human health and the environment. Additionally, remedial actions that leave any hazardous substance, pollutant, or contaminant on-site must meet a level or standard of control that at least attains standards, requirements, limitations, or criteria that are "applicable or relevant and appropriate" under the circumstances of the release.

"Applicable" requirements are cleanup standards, control standards, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state law which specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other conditions at a CERCLA site.

"Relevant and appropriate" requirements, like applicable requirements, are cleanup standards, control standards, or other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state law. However, while not technically "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or other conditions at CERCLA sites, "relevant and appropriate" requirements are well suited to address problems or situations sufficiently similar to those encountered at a CERCLA site.

The difference between "applicable" and "relevant and appropriate" is that the responsible party must comply with an applicable requirement, whereas the responsible party has flexibility in determining which relevant and appropriate provisions are requirements. However, once a requirement is determined to be relevant and appropriate, it must be complied with in the same manner as an applicable requirement. For example, the minimum technology requirement for landfills under the Resource, Conservation, and Recovery Act (RCRA) would apply if a new hazardous waste landfill unit (or an expansion of an existing unit) were to be built on a CERCLA site.

The relevance and appropriateness of a requirement can be judged by comparing a number of factors, including the characteristics of the remedial action, the hazardous substances in question, or the physical circumstances of the site, with those addressed in the requirement. The objectives and origin of the requirement are also important factors. For example, while RCRA regulations are not applicable to closing undisturbed hazardous waste in place, the RCRA regulations for closure by capping may be deemed relevant and appropriate.

A requirement that is judged to be relevant and appropriate must be complied with to the same degree as it would if it were applicable. However, there is more discretion in this determination; it is possible for only part of a requirement to be considered relevant and appropriate, the remainder being dismissed if judged not to be relevant and appropriate in a given case.

There are three types of ARARs. The first type includes chemical specific requirements. These ARARs set limits on concentrations of specific hazardous substances, pollutants, and contaminants in the environment. Examples of this type of ARAR are ambient water quality criteria and drinking water standards. The second type of ARAR includes location-specific requirements that set restrictions on certain types of activities based on site characteristics. These include restriction on activities in wetlands, floodplains, and historic sites. The third type of ARAR includes action-specific requirements. These are technology-based restrictions which are triggered by the type of action under consideration. Examples of action-specific ARARs are RCRA regulations for waste treatment, storage, and disposal.

ARARs must be identified on a site-specific basis from information about specific chemicals at the site, specific features of the site location, and actions that are being considered as remedies.

ARARs may be waived if any one of the following six circumstances apply:

- The remedial action selected is only a part of a total remedial action (interim remedy) and the final remedy will attain the ARAR when it is completed;

- Compliance with the ARAR will result in a greater risk to human health and the environment than alternative options;
- Compliance with the ARAR is technically impracticable based on engineering;
- An alternative remedial action will attain an equivalent standard of performance through the use of another method or approach;
- The ARAR is a state requirement that the state has not consistently applied (or demonstrated the intent to consistently apply) in similar circumstances; or
- For Section 104 Superfund-financed remedial actions, compliance with the ARAR will not provide a balance between protecting human health and the environment and the availability of Superfund money for response at other facilities.

The remainder of this appendix will present ARARs according to:

- Federal and state laws and regulations that must be complied with during site remediation (Section 1.2);
- Regulatory standards and criteria for chemicals of concern at the site (Section 1.3); and
- Guidance documents that should be considered during development of remedial action objectives (Section 1.4).

## 1.1 To Be Considered Requirements

If no ARAR covers a specific situation, or if an ARAR is not sufficient to protect human health or the environment, nonpromulgated standards, criteria, guidance, and advisories may be used. These documents are referred to as "to be considered" (TBCs). TBCs can be used in conjunction with ARARs for each site. Since TBCs are not promulgated or enforceable, they do not have the same weight as ARARs and, therefore,

- Use engineering controls, such as containment, for waste that poses a relatively low long-term threat or where treatment is not practicable;
- Use institutional controls to supplement engineering controls for long-term management and to mitigate short-term impacts; and
- Consider the use of innovative technology if the potential for increased treatment performance or implementability, fewer adverse impacts or lower costs for similar levels of performance, is demonstrated.

The NCP specifies nine evaluation criteria used during the detailed analysis of remedial alternatives. The first two criteria are overall protection of human health and the environment, and compliance with ARARs (or obtaining a waiver). These are considered threshold criteria and must be met for any selected alternative. The next five criteria are considered balancing criteria and are used to weigh trade-offs between alternatives. These balancing criteria are:

- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume through treatment;
- Short-term effectiveness;
- Implementability; and
- Cost.

The final two criteria are state and community acceptance of the selected alternative. These modifying criteria are considered after agency and public comment on the RI/FS report have been received.

If a selected remedial action leaves contaminants on site, the remedial action must be reviewed every five years. If new information concerning the site or chemicals of concern indicate that the selected remedy no longer protects human health or the environment, the need for additional remedial action will be reassessed.

### 1.2.2 Toxic Substances Control Act

TSCA regulates the manufacturing, distribution, storage, treatment, and disposal of polychlorinated biphenyls (PCBs). Only PCBs at concentrations greater than 50 parts per million (ppm) are regulated under TSCA. PCBs releases after 1978 are regulated as if they are present at the concentration of the original material released to eliminate the incentive for generators to purposefully dilute PCB wastes and contaminated soils and avoid TSCA requirements. This no-dilution approach does not apply, however, to Superfund response actions such as at OU B1 until a remedial action is initiated. The United States Environmental Protection Agency (U.S. EPA) policy is to assess the concentration and nature of the PCB contamination at the site and dispose of it in accordance with TSCA.

The TSCA PCB spill policy (40 CFR 761 Subpart G [761.120-761.135]) establishes U.S. EPA criteria to determine the adequacy of spill cleanups of 50 ppm or greater PCBs. This policy regulates PCB spills occurring after May 4, 1987.

Subpart D of the TSCA PCB regulations (40 CFR 761) specify treatment, storage, and disposal requirements for PCBs based on the concentration and form in which they exist in the environment (i.e., liquid or mixed with soil). Under TSCA, spills and other uncontrolled discharges of PCB at concentrations of 50 ppm or greater constitute disposal; PCB resulting from the cleanup and removal of these discharges must be stored and disposed of according to TSCA requirements.

For spills that occurred after February 17, 1978, TSCA chemical waste landfill requirements are an ARAR as they are applicable for PCB concentrations exceeding 50 milligrams per kilogram (mg/kg) remaining in place. Chemical waste landfill requirements are presented in Table E-1. Any of these requirements may be waived (TSCA waiver) if operation of the landfill without that requirement will not present an unreasonable risk of injury to human health or the environment. Most, but likely not all, PCB-contaminated soils at OU B1 resulted from PCB use before 1978. However, while TSCA is not directly applicable to these prior spills, it can be considered a relevant and appropriate requirement. This determination is based on the procedure specified in the CERCLA Compliance with Other Laws Manual for determining when a requirement that, though not applicable, may be relevant and appropriate. The situation for remediation of PCBs spilled either before or after the 1978 is sufficiently similar so that TSCA should be addressed.



TABLE E-1. TSCA CHEMICAL WASTE LANDFILL REQUIREMENTS

- 
- I. Located in thick, relatively impermeable formation such as large area clay pans, or:
- A. On soil with high clay and silt content with the following parameters:
- In-place soil thickness of four feet or compacted soil liner thickness of three feet,
  - Permeability equal to or less than  $1 \times 10^{-7}$ ,
  - Percent soil passing No. 200 Sieve, greater than 30,
  - Liquid limit greater than 30, and
  - Plasticity index greater than 15; and
- B. On a synthetic membrane liner (minimum thickness of 30 mils.) providing permeability equivalent to the soil described above including adequate soil underlining and soil cover to prevent excessive stress on or rupture of the liner.
- II. A. Bottom of the landfill liner system or natural in-place soil barrier at least 50 feet from the historical high groundwater table. Floodplains, shorelands, and groundwater recharge areas shall be avoided and there shall be no hydraulic connection between the site and standing or flowing surface water.
- B. If the landfill is below the 100-year floodwater elevation, surface water diversion dikes should be constructed around the perimeter with a minimum height equal to two feet above the 100-year flood water elevation.
- If the landfill is above the 100-year floodwater elevation, diversion structures capable of diverting all of the surface water runoff from 24-hour, 25-year storm.
- III. Located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping.
- IV. Sampling of designated surface watercourses monthly during disposal activities and once every six months after disposal is completed.
- V. Groundwater monitoring at a minimum of three points (equally spaced on a line through the center of the landfill), sampling frequency determined on a site specific basis (not specified in regulation) samples analyzed for PCBs, pH, specific conductance, and chlorinated organics.
- VI. Leachate Collection System:
- A. Gravity flow drainfield installed above the liner (recommended for use when semi-solid or leachable solid wastes are placed in a lined pit excavated into a relatively unsaturated homogeneous layer of low permeable soil) or
- 

(Continued)

TABLE E-1. (Continued)

- 
- |    |   |
|----|---|
| B. | Gravity flow drainfield installed above the liner and above a secondary line (recommended for use when semi-liquid or leachable solid wastes are placed in a lined pit excavated into relatively permeable soil) or   |
| C. | Network of porous ceramic cups connected to hoses/tubing to a vacuum pump installed along the sides and under the bottom of the waste disposal facility liner (recommended for relatively permeable unsaturated soil immediately adjacent to the bottom and/or sides of the disposal facility). |
- 
- |      |  |
|------|--|
| VII. | Installation of a six foot woven mesh fence, wall or similar device to prevent unauthorized persons and animals. |
|------|--|
- 

Source: *Guidance on Remedial Actions for Superfund Sites with PCB Contamination*, EPA, 1990.

NOTE: Waiver Provision (761.75(c)(4)). One or more of the above requirements may be waived as long as operation of the landfill will not present an unreasonable risk of injury to health or the environment.

The PCB treatment, storage, and disposal requirements under TSCA are presented in Table E-2. These could apply to OU B1 as relevant and appropriate requirements if PCB soils are excavated and stored and/or treated above ground.

### **1.2.3 Resource Conservation and Recovery Act**

RCRA regulates the treatment, storage, and disposal of hazardous wastes. RCRA contains nine sections (subtitles) that deal with specific waste management activities. Two of these subtitles are most likely to be the basis of ARARs for CERCLA remedial actions: Subtitle C (Hazardous Waste Management), and Subtitle D (Solid Waste). The RCRA sections are potential ARARs for OU B1 and are presented in Table E-3. RCRA requirements apply to CERCLA facilities if RCRA hazardous wastes are present, as specified by law.

A RCRA hazardous waste (40 CFR Part 261), must show a characteristic of a hazardous waste (i.e., corrosivity, reactivity, ignitability, or toxicity) or be a "listed" waste. Listed wastes are solid wastes that are:

- From a non-specific source (F-list);
- From a specific source (K-list); or
- Discarded commercial chemical products, off-specification species, container residues, and spill residues that are listed as acute hazardous wastes (P-list) or toxic wastes (U-list).

PCBs are regulated under TSCA and are not included as RCRA-listed wastes. PCB-containing fluids that are regulated under TSCA are exempt from RCRA for hazardous waste determination purposes, even if they exhibit toxic characteristics as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Liquid hazardous wastes, including liquids with PCB concentrations  $\geq 50$  ppm, are regulated as California List Waste for land disposal purposes. As such, these liquids must meet Land Disposal Restrictions (LDR) treatment standards prior to disposal to land.

**TABLE E-2. TSCA TREATMENT, STORAGE, AND DISPOSAL REQUIREMENTS**

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**I. Treatment or Disposal Requirements**

**A. Liquids with PCB concentrations exceeding 500 mg/L have two disposal options**

1. Incineration that complies with 40 CFR 761.70.
2. Alternative disposal method that achieves a level of performance equivalent to incineration.
  - a. Interpretations of this requirement specify that "equivalent" means treatment so that residuals contain less than 2 ppm PCBs.
  - b. The Regional Administrator or Director, Exposure Evaluation Division must approve method (a TSCA permit).

**B. Liquids with PCB concentrations below 500 mg/L but exceeding 50 mg/L and**

1. A flashpoint less than 60 C (ignitable) can be treated using: Incineration; High efficiency boiler; and Alternative treatment.
2. A flashpoint greater than 60 C (not ignitable) have an additional disposal option.
  - a. Incinerator, high efficiency boiler, and alternative treatment, or
  - b. Chemical waste landfill that complies with 40 CFR 761.75 (see Table E-1).
  - c. Demonstrate that wastes do not exceed 500 mg/L.
  - d. Liquids modified to prevent potential future migration of PCBs from landfill.
    - Bulk liquids must be pretreated, stabilized, or both to reduce liquid content or increase solid content so that free liquids are eliminated and waste is nonflowing.
    - Containers of liquid PCBs must be surrounded by enough inert sorbent to absorb all of the liquid contents of the container.

**C. Non-liquids with PCB concentrations exceeding 50 mg/kg**

1. Incineration.
2. Alternative treatment.
3. Chemical waste landfill.

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(Continued)

TABLE E-2. (Continued)

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II. Storage Requirements

A. PCB wastes (exceeding 50 ppm) must be disposed of within one year after they are placed in storage

1. Excavated and landfilled soils.
2. May be waived, if necessary.

B. PCBs stored as part of a Superfund action should be placed in facilities that provide:

1. Adequate roof and walls to prevent rain from reaching PCBs.
  2. Adequate flooring with continuous curbing (minimum 6 inches high).
  3. No drain valves, expansion joints, and so on that would permit liquids to flow from the curbed area.
  4. Flooring and curbing constructed of continuous smooth and impervious materials.
  5. Facility must not be located below 100-year flood water elevation.
-

**TABLE E-3. RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)**

- 
1. 40 CFR 264.111 Subpart G (Closure Performance Standards) for closure with no post-closure care (i.e., clean closure).
  2. 40 CFR 264.91 - 100 Subpart F, which specifies groundwater monitoring requirements for closure of a unit with waste in place.
  3. 40 CFR 264.18(b), which specifies that hazardous waste treatment, storage, or disposal facilities constructed within the 100-year floodplain must be designed, constructed, operated, and maintained to avoid washout.
  4. Subpart N 40 CFR 264.301, RCRA design and operating requirements, which specify minimum technology for construction of a new unit, including a double liner and leachate collection system.
  5. Subpart O 40 CFR 264.340 through 264.351, requirements for incineration of hazardous waste.
  6. 40 CFR 268, Land Disposal Restrictions, are applicable and will be achieved by using BDAT (rotary kiln incineration and stabilization), which is specified in the requirements for no wastewaters containing K001 waste. Treatment levels specified for the constituents pyrene and toluene will be achieved.
-

For PCB soils, RCRA LDRs do not apply assuming no other characteristic, or listing, causes the soils to be defined as RCRA hazardous. However, if the OU B1 soils are defined to be RCRA characteristic (e.g., if TCLP concentrations are exceeded for metals), then incineration is required if total halogenated organic compounds (HOCs) exceed 1,000 mg/kg. Polychlorinated biphenyls are included in the definition of HOCs for this LDR. Dioxins/furans do not cause LDRs to take effect unless the dioxins are from listed sources. Since the source of dioxins is not from any of the chemical waste processing activities listed in F020 through F028, the OU B1 soils are not listed wastes for dioxin and LDRs do not take effect.

RCRA also regulates closure of RCRA treatment, storage, or disposal facilities. In general, facilities closed under RCRA are either "clean closed" by removal of all hazardous waste and contaminated soils or "closed in place" through capping and containing the wastes on site. The purpose of the cap is to prevent direct contact with hazardous wastes, to prevent infiltration of water through the remaining wastes, and minimize the migration of waste to the groundwater. RCRA capping requirements may be relevant and appropriate for OU B1 remedial alternatives that propose to leave RCRA hazardous wastes in place.

If OU B1 is closed with RCRA hazardous wastes remaining on-site, a deed restriction and long-term management controls and monitoring are also required by RCRA. Post closure monitoring and maintenance for these RCRA sites is expected to last for 30 years, although the period can be shortened or lengthened if necessary to ensure protection of human health and the environment. Although remediation of OU B1 does not likely fall under RCRA, some form of long-term controls should be considered.

#### **1.2.4 California Hazardous Waste Regulations**

State hazardous waste treatment, storage, and disposal requirements apply to the wastes that are defined as hazardous under state regulations at OU B1. Unlike RCRA, the state definition of hazardous waste includes PCBs. Compliance with TSCA requirements will generally meet state requirements. TSCA provides for unpermitted on-site storage of PCB waste for 1 year; however, California requirements limit on-site storage of hazardous waste to 90 days. An extension of up to 30 days may be granted by the Department of Toxic Substances Control (DTSC) if hazardous wastes must remain on site due to unforeseen, temporary, and uncontrollable circumstances. The storage limitations imposed by state regulations are considered substantive requirements and must be applied because they pertain

directly to hazardous waste storage activities. These requirements are considered protective by ensuring that wastes do not accumulate in excessive amounts. State requirements regulating off-site transportation of hazardous wastes also apply to these wastes and include manifesting procedures, use of a licensed hazardous waste hauler, and labeling. It is important to note that these requirements are not ARARs, but must be complied with as a matter of state law because transportation will occur on public roads.

Under California law, PCB-contaminated soil is a hazardous waste if the PCB concentration exceeds 50 mg/kg. Liquids are hazardous if the amount of soluble PCBs (evaluated using the Waste Extraction Test) exceeds 5 mg/L. California Code of Regulations (CCR), Title 22, Section 67780 specifies treatment standards for PCB wastes. Liquids with a PCB concentration of 5 mg/L or greater must either be incinerated in a DTSC-approved incinerator that meets 40 CFR 761 or treated to a PCB concentration of less than 2 mg/L. This requirement would apply to remedial alternatives that propose soil treatment methods that generate a liquid PCB wastestream that would need additional treatment.

Wastes containing PCBs at concentrations exceeding 5,000 mg/kg are classified as extremely hazardous (EH) (CCR, Title 11, Section 66723). A special permit is required before extremely hazardous wastes can be handled or disposed of in the state. Because OU B1 is being remediated under CERCLA, a state EH waste permit is not required if wastes are managed on site. However, if EH wastes are transported off site, a permit would be required.

Soil from OU B1 that is contaminated by chemicals of concern other than PCBs may be hazardous if it is ignitable, reactive, corrosive, or toxic. The criteria for ignitability, reactivity, and corrosivity in the state are the same as under federal law. Wastes may be hazardous under state law, however, if they contain certain compounds at concentrations exceeding specified total or soluble concentrations (total or soluble threshold limit concentrations) or if they show acute aquatic toxicity as measured using a 96-hour fish bioassay. Because of the additional toxicity criteria, many wastes may be considered hazardous in California that would not be considered hazardous according to RCRA. These additional tests would need to be performed on OU B1 soils to confirm whether the toxicity criteria is exceeded.

California LDRs prohibit disposal of liquid wastes containing PCB concentrations at 50 mg/L or more and hazardous waste containing halogenated organic compounds in



a total concentration of 1,000 mg/kg or above (CCR, Title 22, 66268.32). Solid hazardous wastes generated during site cleanup that are non-RCRA waste may be exempted from the LDRs if disposal of the waste has been approved by the DTSC or other authorized state agency (California Health and Safety Code [H&SC], Section 25179.6[a][2]).

#### **1.2.5 Porter-Cologne Water Quality Act and Related Policies**

The Porter-Cologne Act provides the State Water Resources Control Board (SWRCB) and the RWQCB with the responsibility of protecting beneficial uses of water in the region. The SWRCB and RWQCB have enforcement authority to regulate potential discharges in order to prevent and mitigate impacts to the state's waters. Section 13304 of the Water Code is applicable and authorizes the RWQCBs to require cleanup and abatement of discharges or potential discharges of waste into the waters of the state.

The SWRCB has set a nondegradation policy to maintain the high quality of waters in California. This policy is called the Statement of Policy with Respect to Maintaining High Quality Waters in California, SWRCB Resolution No. 68-16. Under this policy, the SWRCB has specified that an activity that produces a waste that will be discharged to existing high-quality waters will be required to meet waste discharge requirements resulting in the best practicable treatment or control of the discharge to assure that (1) a pollution or nuisance will not occur and (2) the highest water quality consistent with maximum benefit to the people of the state will be maintained. This policy should be considered when evaluating remedial alternatives. This policy should not affect OU B1 since modeling has demonstrated the PCBs and dioxins will not migrate to groundwater.

The RWQCB also regulates the discharge of waste to land (CCR, Title 23, Division 3, Chapter 15). This provides standards for construction, monitoring, closure, and postclosure maintenance for facilities that accept wastes. Alternatives to construction standards presented in Subchapter 15 may be considered and approved if an engineering alternative is proposed that can still achieve the performance standards, i.e., protection of water quality. These requirements should be considered if wastes will be left in place at OU B1. Sections in this regulation applicable to OU B1 discuss characteristics of waste that can be left in place (Section 2524), construction standards for cap design (Section 2541), precipitation and drainage controls (Section 2546) water quality monitoring programs (Article 5) and closure and post-closure maintenance requirements (Article 8).

The Water Quality Control Plan for the Control Valley Region, commonly known as the Basin Plan, establishes water quality objectives to protect beneficial uses. The beneficial uses of the groundwater in the area of McClellan AFB are municipal, industrial, agricultural, and domestic supply. Remediation of all sites, including OU B1, must protect these beneficial uses.

State Water Resources Control Board Resolution 92-49 (Cleanup and Abatement) establishes policies and procedures for implementing the above SWRCB laws and policies and is applicable to all soil and groundwater cleanups.

The California Inland Surface Waters Plan specifies receiving water limitation for surface waters. Discharge of any stormwater and runoff from the OU B1 site cannot cause any receiving water to exceed the listed concentrations for any constituent.

#### **1.2.6 National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA)**

The National Environmental Policy Act (NEPA) requires that potential environmental impacts of federal projects be evaluated before implementation. California law has a similar law to the federal act, the California Environmental Quality Act (CEQA). Any proposal in California that has the potential to impact the environment requires approval by a public agency and results in CEQA being applied.

Under both the state and federal law, an assessment process is performed once a project is determined to have the potential to affect the environment. The first step is preparing an environmental assessment or initial study (EA/IS) for the project. If the EA/IS indicates that the project will significantly affect the environment, the second step is preparing an environmental impact statement (EIS) (NEPA) or report (EIR) (CEQA).

For CERCLA sites, such as OU B1, preparing an environmental assessment or an EIS is not required. Preparing an RI/FS is considered the substantive equivalent of an EIS and fulfills the requirements of NEPA. NEPA is not considered an ARAR; however, the State of California does not recognize an RI/FS as a substantive equivalent of an EIR, and CEQA is an ARAR.

### 1.2.7 Clean Water Act (CWA)

The CWA establishes site-specific pollutant limitations and performance standards for the protection of surface water quality (point and on-point source discharges to surface waters). The regulations established under the CWA do not specify technology design and operating requirements for water treatment; however, the regulations do establish effluent limitation guidelines and standards that are based on specific industrial categories. Two types of discharges regulated under the CWA that may occur as part of a CERCLA remedial action are: direct discharge to a surface water and indirect discharge to a publicly owned treatment works (POTW).

The National Ambient Water Quality Criteria (NAWQC), established by the CWA, are a nonenforceable guidance that specify concentrations presenting a concern for acute and chronic toxicity to freshwater and salt-water aquatic life. Water-quality criteria, established by the CWA are based on human exposure to compounds in surface water through drinking the water and ingesting fish.

Table E-4 lists water-quality criteria for the compounds of concern at OU B1. When determining whether these criteria are ARARs for OU B1, the most important factors to consider are the designated uses of the water and the purposes for which the potential requirements are intended. If water containing compounds of concern is discharged from the site to waters that support fresh- or saltwater aquatic life, the appropriate NAWQC should be considered when determining effluent limits. NAWQC may be used as guidance by the RWQCB to determine substantive effluent limits for a point-source discharge.

The RWQCB implements the National Pollutant Discharge Elimination System (NPDES) Program under the CWA. The NPDES is a permit system that regulates point source discharges to navigable waters. Under NPDES, water discharged to surface waters either must comply with compound-specific limits or meet an established technology-based standard. Monitoring requirements to enforce compliance with effluent limits are also a part of the permit program.

Although OU B1 will not be required to apply for and obtain an NPDES permit, water discharged from OU B1 must meet NPDES discharge criteria. Effluent monitoring must be performed consistent with normal permit requirements. Potential effluent limits for the chemicals of concern at OU B1 are presented in Table E-4.

**TABLE E-4. WATER QUALITY STANDARDS AND CRITERIA**  
(µg/L)

Constituent	Drinking Water Standards (MCLs) Primary		Action Levels (DTSC)
	Federal	State	Toxicity
<b>VOLATILE ORGANIC COMPOUNDS</b>			
Benzene	5	1	
1,1-Dichloroethene	7	6	
cis-1,2-Dichloroethene	70	6	
Tetrachloroethene	5	5	
1,1,1-Trichloroethane	200	200	
Trichloroethene	5	5	
Toluene	1,000		100
Xylene	10,000	1,750	
<b>SEMIVOLATILE ORGANIC COMPOUNDS</b>			
1,2,4-Trichlorobenzene	9		
PCB-1260	0.5		
Chrysene	0.2		
Fluoranthene	NL	NL	
Pyrene	NL	NL	
<b>METALS</b>			
Arsenic	50	50	
Cadmium	10/5	10	
Chromium (total)	50/100	50	
Lead	50/15	50	

Also see Table 1-1, page 1-16 for CWA WQC, Compliance with Other Laws Guidance.

NL = no designated value given.

For remedial alternatives that generate an aqueous wastestream, reclamation alternatives such as reuse as an industrial or irrigation water supply or reinjection of treated water into the waterbearing zone should be considered. Also, discharge of this aqueous wastestream to a publicly-owned treatment works (POTW) should also be evaluated when determining discharge options for aqueous wastestreams.

The CWA also regulates stormwater runoff associated with construction activity. Stormwater discharges from construction activity where clearing, grading, and excavation results in disturbing 5 or more acres requires: 1) filing a notice of intent (NOI) with the State Water Resources Control Board (providing intent to comply with the stormwater construction permit); 2) paying appropriate fees, 3) development and implementation of a Stormwater Pollution Prevention Plan (SWPPP); and 4) development and implementation of a monitoring program.

Because the remediation activities at OU B1 will be within the operable unit, only the substantive (i.e., nonadministrative or procedural) requirements will have to be met as a result the SWPPP and monitoring program would not be required.

#### **1.2.8 PCB Spill Cleanup Policy**

The PCB Spill Cleanup Policy is presented in 40 CFR, Sections 761.120 through 761.139. The policy describes the level of cleanup required for spills of materials containing PCBs at concentrations of 50 ppm or greater that occur after May 4, 1987. Because the policy has not been promulgated and only applies to recent spills, the PCB Spill Cleanup Policy is not an ARAR for actions at CERCLA sites. However, the policy is a TBC and should be considered when establishing PCB cleanup levels. It does present health-based cleanup levels for spill responses, however, and should be considered. The policy was also used as a basis for developing cleanup levels presented in the Guidance on Remedial Actions for Superfund Sites with PCB Contamination (EPA, 1990).

For spills in industrial and other restricted access areas of high-concentration PCB (equal to or exceeding 500 mg/kg) or of more than 1 pound of low-concentration PCB, the cleanup of impacted soil to 25 mg/kg PCB is required. This cleanup level requires access to the area to be restricted and a deed restriction limiting future use of the site may be required. Spills in nonrestricted access areas are required to be cleaned up to 10 mg/kg

PCBs, provided that the minimum depth of excavation is 10 inches and that a cap of at least 10 inches of clean soil is placed on top of the excavated area.

The more conservative 10 mg/kg PCB remediation goal was selected for OU B1.

### 1.3 Standards and Criteria

This section describes the media-specific standards (water, air, soil) and criteria which are designed to identify concentration levels for compounds of concern that, if exceeded, may present a risk to potential receptors. Water-quality criteria at the federal level are stated in the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA). California also establishes water-quality criteria and standards pursuant to state implementation of the SDWA.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) regulates point sources that may impact air quality in the Sacramento area. SMAQMD Rule 202 specify emission limits for some toxic chemicals that may be emitted during excavation or from treatment technologies such as incinerators, and vapor extraction and air stripping units. SMAQMD Rule 401 establishes a 20% opacity limit for discharges into the atmosphere, from a single source, of any air contaminant other than uncombined water vapor. This limit cannot be exceeded for a period or periods aggregating more than three minutes in any one hour. The opacity limit must also not exceed a No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

SMAQMD Rule 402 specifies that the project be managed such that it does not create a public nuisance. A nuisance is a discharge of an air contaminant or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which endangers the comfort, repose, and health and safety of the public.

SMAQMD Rule 403 requires that all reasonable precautions be taken not to cause or allow the emissions of fugitive dust from becoming airborne beyond the property line from which the emission originates. Both Rule 403 and Rule 402 could have impact on any of the remediation alternatives that involve excavation.

Chemical-specific levels for soil are provided in various guidance documents such as the state *Leaking Underground Fuel Tank Field Manual*, the federal PCB Spill Cleanup Policy, and *Guidance on Remedial Actions for Superfund Sites with PCB Contamination* (EPA, 1990). Guidance documents will be discussed further in the next section.

### **1.3.1 Federal Safe Drinking Water Act**

The Federal Safe Drinking Water Act (SDWA) establishes enforceable drinking water standards for public water supplies and sets non-enforceable health goals for these systems. The SDWA establishes two sets of drinking water standards: primary (chemical-specific developed to protect human health) and secondary (assurance of aesthetic quality of drinking water). Primary standards are expressed as maximum contaminant levels (MCLs). Chemicals must not exceed MCLs at the tap for water provided directly to 25 or more people or to 15 or more service connections. MCLs are set as close to health goals as practicable, accounting for use of the best available water treatment technology, cost, and analytical capabilities. Maximum contaminant levels are both applicable and relevant and appropriate to any water resource that would be served as drinking water.

Maximum contaminant level goals (MCLGs) are levels that would result in no anticipated adverse effect to human health over a lifetime. MCLGs are based solely on health considerations and do not take cost or feasibility into account. MCLGs are set at zero for chemicals considered to be probable human carcinogens. For substances that are not carcinogens, MCLGs are set based on chronic toxicity or other data. MCLGs are more stringent than MCLs. MCLGs may be relevant and appropriate in special circumstances where multiple contaminants in groundwater or multiple pathways of exposure present unacceptable health risks. Table E-4 lists MCLs and MCLGs for the chemicals at OU B1.

### **1.3.2 California MCLs and Action Levels**

The state has promulgated drinking water standards for water suppliers within California. These MCLs are presented in CCR, Title 22, Sections 64435 through 64473. Many of the state MCLs are the same as the federal levels. In some cases, state MCLs are more stringent. State MCLs which are more stringent than federal MCLs or which have been promulgated for substances for which there is no federal MCL are ARARs. State MCLs for the compounds of concern at OU B1 are presented in Table E-4.

The Office of Drinking Water of the California Department of Health Services (DHS) also establishes state drinking-water actions levels (SALS) for compounds potentially present in drinking water supplies, in their California Domestic Water Quality and Monitoring Regulations. Although these levels are not legally enforceable standards (i.e., they are TBCs, not ARARs), they are used by the DHS as guidance for "safe" levels of contaminants in drinking water. Also, they are used to determine when water suppliers must take corrective action to reduce contamination in drinking water. SALS should be considered when establishing remedial objectives. State SALS were most recently updated in January 1990. Table E-4 also lists these state ALs. The state also has Applied Action Levels for certain constituents that were developed by the DTSC to be used in conjunction with the California Site Mitigation Decision Tree.

### **1.3.3 RCRA Incinerator Standards**

RCRA has established incinerator treatment standards for dioxins/furans that required that the wastes be incinerated to achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC). POHCs are listed in 40 CFR part 261, Appendix VIII. The incinerator performance standard must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans.

The incinerator that produces stack emissions of more than 1.8 kilograms per hour of hydrogen chloride (HCl) must have HCl emission controls.

These incineration standards are incorporated into the California CCR Title 22 hazardous waste management regulations.

### **1.4 Guidance Documents**

The EPA and state agencies have prepared guidance documents (i.e., TBCs) that present requirements to be considered for site remediation. State guidance provides information about leaking underground fuel tank sites. Federal guidance provides information about investigating and remediating CERCLA sites; remediating PCB-contaminated sites; and investigating and remediating contaminated groundwater at CERCLA sites.



The U.S. EPA has prepared several documents that provide background information and guidance on investigating and remediating CERCLA sites. These documents supply information for complying with CERCLA and the NCP and provide guidance for scoping investigations and feasibility studies, evaluating ARARs for a site, developing and evaluating remedial alternatives, among other topics. The following guidance documents should be considered and followed to the best extent practicable for investigation and remediation of CERCLA sites.

- *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA* (interim final) (U.S. EPA, 1988);
- *Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites* (U.S. EPA, 1988);
- *CERCLA Compliance with Other Laws Manual* (Vol. I and II), (U.S. EPA, 1988 and 1989); and
- EPA Handbook on Remedial Action at Waste Disposal Sites for Control of Gaseous Emissions from Landfills.

#### **Guidance on Remedial Actions for Superfund Sites with PCB Contamination**

The *Guidance on Remedial Actions for Superfund Sites with PCB Contamination* was prepared by the U.S. EPA in August 1990. This document discusses the recommended approach for evaluating and remediating Superfund sites with PCB contamination and provides guidance for determining remediation goals, identifying treatment options, and evaluating long-term management controls for wastes remaining at a site. Potential ARARs for PCB sites are discussed and guidelines for establishing remediation goals are discussed. Potential ARARs for dioxins are not discussed in this document.

Recommended soil remediation goals, or the concentrations of PCB in soil above which some action such as treatment or containment should be considered, are presented for both residential and industrial uses. The expected remediation goal for residential sites is 1 mg/kg PCB and assumes no cover or management controls are required. A remediation goal of 10 mg/kg PCB is specified if a 10-inch cover of clean soil is used.

For industrial sites, such as OU B1, preliminary remediation goals are estimated to be between 10 and 25 mg/kg PCB. A final remediation goal of 10 mg/kg PCB was selected based on best professional judgement and the desire to select protective levels.

The guidance document also identifies PCB soil concentrations that would be considered a "principal threat." Remedial alternatives developed under CERCLA are expected to treat principal threats where practicable and use engineering controls for waste that pose a relatively low long-term threat. The document requires that soil contaminated at 2 to 3 orders of magnitude above the action level should be included as a principal threat. The document also specifies that for sites in industrial areas, PCB at concentrations equal to or exceeding 500 mg/kg will generally be defined as constitute a principal threat. Treating soils containing PCB concentrations below that considered a principal threat would in some cases be required, such as sites located in sensitive areas or situations where treatment is more cost-effective than containment. This TBC also identifies case in which containing rather than treating principal threats is appropriate. These cases include sites in which PCBs are mixed with other chemicals that make treatment impracticable and sites where the principal threats are not accessible. A principal threat remediation goal of 500 mg/kg PCB was selected for OU B1.

## **APPENDIX F**

Costs Backup

#1 no action

**Engineer Cost Estimate  
Operable Unit B1 Focused RI/FS  
McClellan AFB, California**

Rev	Comp Bv	Chk d Bv
	RVO	REM
Date	5-21-93	Date
		5/21/93
Date		Date

**CAPITAL COSTS**

Task	Quantity	Unit Cost	Extension	
Containment				
Excavation				
Transport				
Treatment System ①				
Disposal				
Treatability/Pilot Study				
Waste Characterization				
Drainage System <i>monitoring wells (3)</i>	3	5000	15000	
Material Handling <i>Lysimeters (6)</i>	6	1,000	6,000	
Backfill with Treated Soil				
Backfill with Imported Soil				
Subtotal			21,000	(a)
Engineering	(0.15*a)		3150	
Permits	(0.05*a)		1050	
Contingency	(0.15*a)		3150	
<b>TOTAL CAPITAL COST</b>			<u>28,350</u>	(b)

**O&M COSTS**

Task	Quantity	Unit Cost	Extension	
Treatment System Operation				
Long-Term Monitoring <i>vadose zone</i>	Annual	20,300	20,300	
Maintenance <i>G.W. surface water</i>			2535	
Utilities <i>100% of capital cost</i>				
<b>TOTAL O&amp;M COST</b>			<u>23,135</u>	(c)

	Duration	Interest Rate	Present Value	
Present Value of O&M Costs	30 yrs	7% Annuity Factor	287,082	(d)
<b>ESTIMATED TOTAL COST</b>		= 12.409	<u>315,432</u>	(b+d)
	+ 1st year costs		81,200	
			<u>\$396,632</u>	

**Engineer Cost Estimate**  
**Operable Unit B1 Focused RI/FS**  
**McClellan AFB, California**

2 CAP

Rev	Comd. By	Chkd By
	Ruo	REM
Date	5-21-93	Date
		5/21/93
Date		Date

**CAPITAL COSTS**

Task	Quantity	Unit Cost	Extension	
Containment	445,500 ft <sup>2</sup>	\$2.15/ft <sup>2</sup>	957,825	
Excavation PSP Removal	376,500 ft <sup>2</sup>	\$0.24/ft <sup>2</sup>	90,360	
Transport DUST control	304 hrs	\$57.24/hr	17,400	
Treatment System ①				
Disposal				
Treatability/Pilot Study				
Waste Characterization				
Drainage System				
Material Handling <sup>move</sup> Ditch sediment to site	1152 cy	16.64/cy	19,169	
Backfill with Treated Soil				
Backfill with Imported Soil				
Subtotal			1,084,754	(a)
Engineering	(0.15%a)		162,713	
Permits	(0.05%a)		54,238	
Contingency	(0.15%a)		162,713	
<b>TOTAL CAPITAL COST</b>			<b>1,464,418</b>	(b)

**O&M COSTS**

Task	Quantity	Unit Cost	Extension	
Treatment System Operation				
Long-Term Monitoring (Inc Maint.) (see location)			23,135	
Maintenance 100% of Asphalt cost	445,500 ft <sup>2</sup>	0.053/ft <sup>2</sup>	23,612	
Utilities				
<b>TOTAL O&amp;M COST</b>			<b>46,747</b>	(c)
	Duration	Interest Rate	Present Value	
Present Value of O&M Costs	30 yrs	7% 12.429	580,084	(d)
<b>ESTIMATED TOTAL COST</b>		ADP	<b>2,044,502</b>	(b+d)

$$\text{COST/TOW} = 2,044,502 \div 16,100 \text{ TOWS} = 127 \text{ /TOW}$$

**Engineer Cost Estimate  
Operable Unit B1 Focused RI/FS  
McClellan AFB, California**

Rev	Comp. By	Chkd By
	Rvo	REM
Date	5-21-93	Date 5/21/93
Date		Date

**CAPITAL COSTS**

Task	Quantity	Unit Cost	Extension	
Containment PAVE	445,500 ft <sup>2</sup>	2.15/ft <sup>2</sup>	957,825	
Excavation >10 ppm PCBs	11,500 cy	674/cy	77,510	
Transport	16,100 tons	30/ton	483,000	
Treatment System <sup>①</sup> PSM removal	376,500 ft <sup>2</sup>	50.24/ft <sup>2</sup>	90,360	
Disposal	16,100 tons	92/ton	1,449,000	
Treatability/Pilot Study stabilization	3723 tons	230/ton	856,290	
Waste Characterization TCLD	25 samples	1,000/can	25,000	
Drainage System DUST control (during PSM removal + Excavation)	Lump		35,000	
Material Handling				
Backfill with Treated Soil Ditch sediment	1,152 cy	16.64/cy	19,169	
Backfill with Imported Soil	10,348 cy	16.84/cy	174,260	
Subtotal			4,167,414	(a)
Engineering	(0.15*a)		62,512	
Permits	(0.05*a)		208,371	
Contingency	(0.15*a)		625,112	
<b>TOTAL CAPITAL COST</b>			<b>5,626,009</b>	(b)

**O&M COSTS**

Task	Quantity	Unit Cost	Extension	
Treatment System Operation				
Long-Term Monitoring				
Maintenance				
Utilities				
<b>TOTAL O&amp;M COST</b>				(c)
	Duration	Interest Rate	Present Value	
Present Value of O&M Costs				(d)
<b>ESTIMATED TOTAL COST</b>			<b>5,626,009</b>	(b+d)

$$\$ / \text{TON} = \$5,626,009 \div 16,100 \text{ tons} = \$349 / \text{TON}$$

**Engineer Cost Estimate  
Operable Unit B1 Focused RI/FS  
McClellan AFB, California**

4 OFF-SITE 1000

Rev	Com'd By	Chk'd By
	RVO	REH
Date	5-31-93	Date
		5/21/93
Date		Date

**CAPITAL COSTS**

Task	Quantity	Unit Cost	Extension
Containment PAVE	445,500 ft <sup>2</sup>	2.15/ft <sup>2</sup>	957,825
Excavation 10' deep	11,500 cy	6.74/cy	77,510
Transport	16,100 tons	30/ton	483,000
Treatment System ① PSP Removal	376,500 ft <sup>2</sup>	0.24/ft <sup>2</sup>	90,360
Disposal DUST Control (PSP Removal or Excavation)	Lump		35,000
Treatability/Pilot Study			
Waste Characterization TCLP	25 Samples	1,000/sample	25,000
Drainage System			
Material Handling			
Backfill with Treated Soil Ditch Sealing ②	1,152/cy	16.64/cy	19,169
Backfill with Imported Soil	10,348/cy	16.84/cy	174,260
Subtotal			1,862,124 (a)
Engineering (0.15*a)			279,319
Permits (0.05*a)			93,106
Contingency (0.15*a)			279,319 (b)
<b>TOTAL CAPITAL COST</b>			<b>2,513,868</b>

**O&M COSTS**

Task	Quantity	Unit Cost	Extension
Treatment System Operation Incineration cost	32,200,000 lbs	1.00/lb	32,200,000
Long-Term Monitoring			
Maintenance			
Utilities			
<b>TOTAL O&amp;M COST</b>			

	Duration	Interest Rate	Present Value
Present Value of O&M Costs	1 yr		32,200,000 (d)
<b>ESTIMATED TOTAL COST</b>			<b>34,713,868 (b+d)</b>

\$/ton 34,713,868 ÷ 16,100 = \$2,156/ton

**Engineer Cost Estimate  
Operable Unit B1 Focused RI/FS  
McClellan AFB, California**

45 outside TREAT

Rev	Comp. By	Chkd By
	RVO	REM
Date	5/31/93	Date
		5/26/93
Date		Date

**CAPITAL COSTS**

**Task**

	Quantity	Unit Cost	Extension
Containment PAUC	445,500 ft <sup>2</sup>	2.15/ft <sup>2</sup>	957,525
Excavation >10 ppm PCB	11,500 cy	6.74/cy	77,510
Transport	9,200 cy	2.25/cy	20,700
Treatment System <sup>①</sup> = incl. dist. mod + removal	9,200 cy	1,260/cy	11,592,000
Disposal See Backup For calculation	Lump		1,127,000
Treatability/Pilot Study PSP Remant	376,500/ft <sup>2</sup>	90.24/ft <sup>2</sup>	90,360
Waste Characterization TCLP	25 samples	\$1,000 each	25,000
Drainage System Dust control (PSP Remant + Excavation)	Lump		35,000
Material Handling BACKfill w/Import	1148 cy	16.84/cy	19,332
Backfill with Treated Soil Ditch sediment	1,152 cy	16.64/cy	19,169
Backfill with <sup>Treated</sup> Imported Soil	9200	\$4.96	45,632
Subtotal			14,009,328 (a)
Engineering	(0.15*a)		2,101,429
Permits	(0.05*a)		700,476
Contingency	(0.15*a)		2,101,429

**TOTAL CAPITAL COST**

18,912,862 (b)

**O&M COSTS**

**Task**

	Quantity	Unit Cost	Extension
Treatment System Operation			
Long-Term Monitoring			
Maintenance			
Utilities			

**TOTAL O&M COST**

(c)

Duration	Interest Rate	Present Value
----------	---------------	---------------

Present Value of O&M Costs

(d)

**ESTIMATED TOTAL COST**

18,912,862

(b+d)

$$\$ / \text{TON} = 18,912,862 \div 16,100 \text{ TONS} = \$1,175 / \text{TON}$$



**Engineer Cost Estimate  
Operable Unit B1 Focused RI/FS  
McClellan AFB, California**

6 CAP - Treatment

Rev	Comp By	Chk'd By
	200	REM
Date	5-21-93	Date 5/21/93
Date		Date

**CAPITAL COSTS**

Task	Quantity	Unit Cost	Extension	
Containment	445,500 ft <sup>2</sup>	2.15	957,825	
Excavation - PSP Removal	376,500 ft <sup>2</sup>	0.24/ft <sup>2</sup>	90,360	
Transport - Dust Control	304 hrs	57.24/hr	17,400	
Treatment System ①				
Disposal				
Treatability/Pilot Study	Lump		410,000	
Waste Characterization				
Drainage System				
Material Handling - move ditches to site	1152 cy	16.64/cy	19,169	
Backfill with Treated Soil				
Backfill with Imported Soil				
Subtotal			1,494,754	(a)
Engineering	(0.15*a)		224,213	
Permits	(0.05*a)		74,738	
Contingency	(0.15*a)		224,213	
<b>TOTAL CAPITAL COST</b>			<b>2,017,918</b>	(b)

**O&M COSTS**

Task	Quantity	Unit Cost	Extension	
Treatment System Operation				
Long-Term Monitoring - See NO ACTION			23,135	
Maintenance - See CAP			23,612	
Utilities				
<b>TOTAL O&amp;M COST</b>			<b>46,747</b>	(c)

	Duration	Interest Rate	Present Value	
Present Value of O&M Costs	30 yrs	7%	580,004	(d)
<b>ESTIMATED TOTAL COST</b>		12.40% ADF	<b>2,598,002</b>	(b+d)

$$\$/TON = 2,598,002 \div 16100 = \$161 / TON$$

**Engineer Cost Estimate  
Operable Unit B1 Focused RI/FS  
McClellan AFB, California**

Rev	Comp By	Chkd By
	R.oo	R.oo
Date	5-21-93	5/21/93
Date		Date

**CAPITAL COSTS**

Task	Quantity	Unit Cost	Extension	
Containment	445,500 $ft^2$	215/ $ft^2$	957,225	
Excavation >100 yds $ft^3$	4,400 cy	6.74/cy	29,656	
Transport	6160 tons	30/ton	184,800	
Treatment System <sup>(1)</sup> PSP Removal	376,500 $ft^2$	0.24/ $ft^2$	90,360	
Disposal	6160 tons	90/ton	554,400	
Treatability/Pilot Study STABILIZATION	2134 tons	230/ton	490,820	
Waste Characterization TCLP	10	1,000	10,000	
Drainage System Dust control	Lump		24,180	
Material Handling <sup>(PSP Removal + Excavation)</sup>				
Backfill with Treated Soil Ditch Sediment	1,152 cy	16.64/cy	19,169	
Backfill with Imported Soil	3248 cy	16.84/cy	54,696	
Subtotal			2,415,906	(a)
Engineering	(0.15%a)		362,386	
Permits	(0.05%a)		120,795	
Contingency	(0.15%a)		362,386	
<b>TOTAL CAPITAL COST</b>			<b>3,261,473</b>	(b)

**O&M COSTS**

Task	Quantity	Unit Cost	Extension	
Treatment System Operation				
Long-Term Monitoring See NO Action			23,135	
Maintenance 10% Asphalt (see capping)			23,612	
Utilities				
<b>TOTAL O&amp;M COST</b>			<b>46,747</b>	(c)
	Duration	Interest Rate	Present Value	
Present Value of O&M Costs	30 yrs	7% 12.489	580,084	(d)
<b>ESTIMATED TOTAL COST</b>		ADF	<b>3,841,557</b>	(b+d)

$\$/ton \quad 3,841,557 \div 16,100 = \$239/ton$

## GENERAL COMPUTATION SHEET

 CLIENT NAME McCallum  
 PROJECT NAME OUR-1

Long term monitoring

CALCULATION SET		
Prelim.		
Final		
Sheet      Of		
Charge #		
Rev	Comp. By	Chk'd By
	RJD	EGM
	Date 5-20-93	Date 5/2/93
	Date	Date

Assume 3 wells @ 5000 each      15,000  
 6 lysimeters @ 1,000 each installed      6,000  
21,000

Analyses - PCBs, Dioxins

PCB - \$150/sample

dioxins - 1,000/sample = \$1,150/sample

#samples/event , 3 G.W, 6 soil moisture, 3 surface water  
 = 12 samples

YEAR 1 Quarterly       $4 \times 12 \times 1,150 = 55,200$

YEAR 2-3 Annually       $12 \times 1,150 = 13,800$

Reporting/Labor      100 hours/event @ 65/hr = 6500/event

YEAR 1 =  $4 \times 6500 = 26,000$

TOTAL YEAR 1       $55,200 + 26,000 = 81,200$

TOTAL YEARS 2-30 /year       $13,800 + 6500 = 20,300$

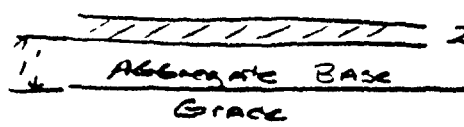
## GENERAL COMPUTATION SHEET

 CLIENT NAME McClellan  
 PROJECT NAME QUR 1 RIF

 CA, - Construction Estimate  
 Source Means Building Construction  
 COST DATA, 1993  
 COST QUOTE: Where Indicated

CALCULATION SET		
Prelim.		
Final		
Sheet <u>1</u> Of <u>2</u>		
Charge #		
Rev	Comp. By	Chk'd By
	Rvo	REM
	Date	Date
	2/25/93	3/1/93
	Date	Date

 CAP Area 445,500 Ft<sup>2</sup>

 CAP DESIGN  2.5" Asphaltic Concrete  
 Aggregate Base  
 Grade

Purchase + Deliver Aggregate (7 1/2")

$$445,500 \text{ Ft}^2 \times 1' = 445,000 \text{ Ft}^3 \div \frac{27 \text{ ft}^3}{\text{yd}^3} = 16,500 \text{ yd}^3$$

$$16,500 \text{ yd}^3 \times \frac{1.4 \text{ TONS}}{\text{yd}^3} = 23,100 \text{ TONS} \times \$10/\text{TON} = \$231,000$$

Price Quote From Elk Grove Ready mix.

Grade + Compact

 From Means (Page 48, 308/0300)  
 Building Construction Data

$$445,500 \text{ Ft}^2 \div \frac{9 \text{ Ft}^2}{\text{yd}^2} = 49,500 \text{ yd}^2 \times \$9.95/\text{yd}^2 = 492,525$$

GENERAL COMPUTATION SHEET

CLIENT NAME McCLellan  
PROJECT NAME QUBI, RIFS

CAP construction ESTIMATE

CALCULATION SET		
Prelim.		
Final		
Sheet <u>2</u> Of <u>2</u>		
Charge #		
Rev.	Comp. By	Chk'd By
	<u>RVD</u>	<u>REM</u>
	Date <u>2/25/93</u>	Date <u>3/1/93</u>
	Date	Date

ASPHALT CAP (MEANS) Building construction cost data

$$445,500 \text{ Ft}^2 \div \frac{9 \text{ Ft}^2}{\text{yd}^2} = 49,500 \text{ yd}^2$$

(PAGE 57 #0080) Binder course 1.5"  $49,500 \text{ yd}^2 \times 2.72/\text{yd}^2 = 134,640$

(PAGE 57 #0300) Wearing course 1"  $49,500 \text{ yd}^2 \times 2.02/\text{yd}^2 = 99,990$

SUMMARY

Purchase Aggregate	\$ 231,000
Grade + compact	492,525
Binder	134,640
Wearing	<u>99,990</u>
	958,155

$$958,155 \div 445,500 = \$2.15/\text{Ft}^2$$

## GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME OUR 1

CALCULATION SET		
Prelim.		
Final		
Sheet <u>1</u> Of <u>2</u>		
Charge #		
Rev.	Comp. By	Chk'd By
	RVD	RCh
	Date	Date
	5-19-93	5/21/93
	Date	Date

EST. FOR THE ABOVE SCOPE

MEANS: SITE WORK - A. & LANDSCAPE COST DATA  
1993

Remove

ASSUME A CREW B-5 (MEANS, 1993 PAGE 452)

COST/HR \$48.27 (1 Foreman, 4 Laborers,  
ASSUME: 376,500 FT<sup>2</sup> PSP (48% of 18 acres) 2 equip operators, 1 mechanic)

100 x 100' CAN BE REMOVED/DAY = 38 DAYS x 8 hrs = 304 hrs

304 hrs x \$48.27/hr = 14,674

FOR HEALTH AND SAFETY ADD 100% = \$29,348 = \$96.54/hr

SAY \$29,500
Decontaminate

ASSUME A CREW A-5 (MEANS 1993, PAGE 451)

(2 Laborers, .25 TRUCK DRIVER)

COST/HR = \$31.46 x 304 hrs = \$9,564.

ASSUME 20% INCREASE FOR HEALTH + SAFETY 9,564 x 1.2 = 11,477

11,477 ÷ 304 hrs = \$37.75/hr.
Drainage Water Disposal

CATCH BASIN 6' deep (MEANS pg 83 #1120)

\$720

WATER TANK (2 months)

1,100

1,820

SAMPLE WATER 3 TIMES x 1150/sample = \$3,450

(150 PCB, \$1,000 DRAIN)

GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME 02B-1

CALCULATION SET		
Prelim.		
Final		
Sheet <u>2</u> Of <u>2</u>		
Charge #		
Rev.	Comp. By	Chk'd By
	R.D.	Rfm
	Date	Date
	5-17-53	6/2/53
	Date	Date

Wipe Samples From PSP.  
Assume 25 samples x 1150" each #

29,000

Total decon  
say

45,747

46,000

- Assume ① H<sub>2</sub>O discharged to sewer  
② Sediment managed with R.A. at 02B-1  
③ PSP is Recycled

COST Remove \$29,500

DECON 46,000

\$75,500

Assume 20% For Reporting  
And Documentation

A 1.2  
\$90,600

$$90,600 \div 376,500 \text{ F.E.}^2 = \$0.24 / \text{F.E.}^2$$

## GENERAL COMPUTATION SHEET

 CLIENT NAME McClellan  
 PROJECT NAME COE-1

Estimate for dust control

 Review site work and landscape cost data  
 1993

CALCULATION SET		
Prelim.		
Final		
Sheet <u>1</u> Of <u>1</u>		
Charge #		
Rev	Comp By	Chk'd By
	Rvo	Rfm
	Date 5-19-93	Date 5/20/93
	Date	Date

For GSP Removal only

Assume minimal equipment movement

 MANS crew B-59 (page 459) (Truck Driver, Truck,  
 5000 gallon water tank,

cost/hr \$95.81

Assume only 0.5 B-59 crew members

 $304 \text{ hrs (see GSP Removal cost)} \times \$95.81/\text{hr} \times 0.5 = 14,500$ 

 Add 20% For Health and safety  $14,500 \times 1.2 = \$17,400$   
 $\$17,400 \div 304 \text{ hrs} = 57.24/\text{hr}$ 
For Excavation Activities

Assume Heavy equipment traffic, mans crew B-59

@ \$95.81/hr

 $100 \text{ ppm } 153 \text{ hrs} \times \$95.81/\text{hr} = \$14,660$ 

 Add 20% For Health + safety  $14,660 \times 1.2 = 17,600$ 
 $100 \text{ ppm } 59 \text{ hrs} \times \$95.81/\text{hr} = 56.50$ 

+ 20% For H+S

 $\frac{56.50}{1.2} = \$6,780$



## GENERAL COMPUTATION SHEET

 CLIENT NAME McClellan  
 PROJECT NAME 008-1

Ditch Sediment Excavation

CALCULATION SET		
Prelim.		
Final		
Sheet <u>1</u> Of <u>2</u>		
Charge #		
Rev.	Comp. By	Chk'd By
	<u>RVO</u>	<u>RLM</u>
	Date <u>5-20-93</u>	Date <u>5/21/93</u>
	Date	Date

 Assume 1152 cy TOTAL  
 980 cy in unlined ditched  
 172 cy on paved surfaces

Unlined

Backhoe 1/2 cy, 30 cy/hr

Means Site work 1993, page 37 # 0310 \$ 3.77/cy

$$980 \text{ cy} \times 3.77/\text{cy} = 3695$$

 mobilization (means pg 43  
 # 0300)

$$\underline{291}$$

3,986 TO Excavate

Haul 12 cy Truck Means site work page 42 # 0330 256/cy  
 1 mile RT

$$980 \text{ cy} \times 2.56/\text{cy} = \underline{2509} \text{ TO haul}$$

Unlined subtotal

6,495

4 Confirmation Analyses x \$1,150/sample 4,600

\$ 11,095

## GENERAL COMPUTATION SHEET

 CLIENT NAME McClellan  
 PROJECT NAME OUB-1

CALCULATION SET		
Prelim.		
Final		
Sheet <u>2</u> Of <u>2</u>		
Charge #		
Rev	Comp By	Chk'd By
	RVO	REM
	Date 5-20-93	Date 5/21/93
	Date	Date

Ditch Sediment Excavation

Lined Ditches

172 cy

Equipment same as unlined

$$172 \text{ cy} \times 3.77/\text{cy} = \$648 \text{ Excavate}$$

$$172 \text{ cy} \times 2.56/\text{cy} = 440 \text{ HAUL}$$

Subtotal \$1088

## Labor to Sweep ditches

 Means Crew 3-5 site work and landscape 1993  
 Page 452

$$\$48.27/\text{hr} \times 80 \text{ hours} = 3,862$$

 Total Lined 4,950

 Total Sediment 16,045

$$\$16,045 \div 1152 \text{ cy (Bulked by 15\%)} = \$13.93/\text{cy}$$

$$\begin{array}{r}
 \text{(See outside treatment)} + \\
 \text{Backfill} \\
 + \text{compact} \\
 \hline
 \$16.64/\text{cy}
 \end{array}$$

1-85-18743

GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME OUR-1

CALCULATION SET		
Prelim.		
Final		
Sheet <u>1</u> Of <u>2</u>		
Charge #		
Rev	Comp. By	Chk'd By
	RVO	IREM
	Date	Date
	5-19-93	5/21/93
	Date	Date

Excavation costs

Excavate

MEANS Building Construction COST DATA 1993

PAGE 43 #1300 3 cy Front End Loader, 13/4 cy Backhoe

# 1.23/cy F.E.L.  
# 3.11/cy Backhoe

Mobilization \$270 (means pg 48 #1300) F.E.L.

\$300 (means pg 48 #0900) Backhoe

\$570  $\$570 \div 11,500 \text{ cy} = 0.05/\text{cy}$

$\$1.23 + 3.11 + 0.05 = \$4.39/\text{cy}$  TO Excavate + pile

Load

Assume Loading = Front End loader cost of \$1.23/cy

Excavation cost

4.39  
+ 1.23  
\$5.62  
x 1.2  
\$6.74/cy

Assume 20% Fr Health  
And safety



# GENERAL COMPUTATION SHEET

CLIENT NAME McClallan  
PROJECT NAME OUB-1

Excavation

CALCULATION SET		
Prelim.		
Final		
Sheet <u>2</u> Of <u>2</u>		
Charge #		
Rev	Comp. By	Chk'd By
	RJO	REh
	Date 5-19-93	Date 5/24/93
	Date	Date

Time Required to Excavate (Affect DUST  
control cost)

Assume 3 Tandem Trucks loaded/hour (25 cy total)

>10ppm  $11,500 \text{ cy} \div 25 = 460 \text{ Trucks} \div 3/\text{hour} = 153 \text{ hours}$

>100ppm  $4400 \text{ cy} \div 25 = 176 \text{ Trucks} \div 3/\text{hour} = 59 \text{ hours}$



## GENERAL COMPUTATION SHEET

CLIENT NAME McLellan  
PROJECT NAME OVR-1

COST FOR TCLP ANALYSIS FOR  
OFF-SITE DISPOSAL TREATMENT  
ALTERNATIVES.

CALCULATION SET		
Prelim.		
Final		
Sheet 1 Of 1		
Charge #		
Rev	Comp By	Chk'd By
	RVO	RGM
	Date 5-19-93	Date 5/21/93
	Date	Date

Assume 1 sample / 500 cy = 23 samples @ \$1,000  
+ 2 QA/QC = 25  
per sample = \$25,000

> 100 ppm PCB  $4,400 \div 500 = 8.8 \text{ samples} = 9 + 1 \text{ QA/QC}$   
= 10



# GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME QWP-1

COST to stabilize soil  
before disposal

CALCULATION SET		
Prelim.		
Final		
Sheet 1 Of 1		
Charge #		
Rev.	Comp. By	Chk'd By
	RJO	129m
	Date 5-19-93	Date 5/21/93
	Date	Date

Phone Quote, Chem waste / Petroleum li. w  
\$ 230 / TON

Assume 20% of Volume > 10 ppm < 500 ppm  
Requires Stabilization = 870 cy

Assume 50% of > 500 ppm = 1789

2659<sup>cy</sup> Reg Stabilization  
x 1.4  
3,723 TONS TOTAL > 10 ppm

Assume 30% of Volume > 100 < 500 ppm  
Requires Stabilization

822 cy x .3 = 246.6 cy x 1.4 = 345 TONS

> 100 = 345  
+ 1789  
2134 TONS

GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME OUB-1

Backfill w/Impacted Soil

CALCULATION SET		
Prelim.		
Final		
Sheet      Of		
Charge #		
Rev	Comp By	Chk'd By
	Roo	Rfm
	Date 5/20/93	Date 5/21/93
	Date	Date

Borrow + Spread

(Means building construction cost data 1993 pg 42, 212/0600)

Select structural Fill \$12.70 /cy

5 mile Haul  
(pg 42, 212/0900)

3.47 /cy  
\$16.17 /cy

compaction (pg 42, 222/0400) 0.67 /cy

TOTAL /cy \$16.84 /cy

Cy needed 11,500 Excavated  
1,152 From Ditches  
10,348 cy.

# RADIANT CORPORATION

## CONTACT REPORT

CONTACT REPORT

DATE 2/2/93 ORIGINATOR Gregg Holloway

CONTACT BY: TELEPHONE ☒ MEETING ☐ OTHER ☐

<b>NAME, TITLE &amp; ORGANIZATION</b>
Dean Faur K. Hines 14.11. Toulon, Kettlinan Hills, CA
<b>ADDRESS &amp; TELEPHONE NUMBER</b>
(916) 939-4435
<b>PURPOSE OR SUBJECT (Give project number if appropriate)</b>
Transport and Disposal of PCB and Dioxin Contaminated Soils

## SUMMARY

\$60 - 80 / ton disposal + 10% tax  
\$700 / load. \$30 / ton transportation from Sacramento area  
\$300 for waste characterization fee.

Dunn said that they can accept dioxin containing  
wastes as long as they are not listed (e.g. F227)

**ACTION**

Use \$90/ton for disposal, \$30/ton for transport, and \$300 for

disinfection

**DISTRIBUTION:**

Kenny Marx  
Mark Galloway



## TELEPHONE CALL RECORD

Project No. 269-201-20-42		Client McClellan AFB		Distribution File FS Team
Project Name OU B1 Feasibility Study				
Date 18 January 1993	Time	Page 1 of 1		
Call Record Prepared by MTGalloway				Signature
Conversation with Katherine Arini		Of Rollins Environmental Services		Phone Number (510) 226-1680
General Subject Feasibility for treatment or disposal of PCB and dioxin soils.				

### NOTES

Request for information about treatment technology or disposal costs to manage PCB (600-1,000 ppm) and dioxin (10 ppb TCDD equivalent) contaminated soils (3,000-10,000 C.Y.)

#### Incinerator:

She felt that if the soils were not RCRA listed hazardous wastes under the dioxin code FO27, her facility could manage the soils. The soils would undergo a preliminary analysis for TOC. If the TOC indicated concentrations greater than 1%, further analysis by a gas chromatograph to further speciate the compounds would be done. Also metals analysis would be performed. She did not think that lead contamination less than 2500 ppm would pose any problems.

#### Costs:

She estimated the cost to treat would range from \$0.55/lb to \$2.00/lb and that typical soils were approximately 1.5 ton per cubic yard.

#### Action:

Submit a waste profile and receive a more precise estimate.

## GENERAL COMPUTATION SHEET

 CLIENT NAME McClellan  
 PROJECT NAME OUB-1

CALCULATION SET		
Prelim.		
Final		
Sheet 1 Of 2		
Charge #		
Rev	Corr'd By	Chk'd By
	200	200
Date	5-20-93	5/21/93
Date		Date

on-site Treatment

EXCAVATION (SEE EXCAVATION Estimate)

 TRANSPORT means 93-022-266-0600  
 16.5 cy, 1 mi RT

@ 2.25 cy

 TREAT, incineration costs (Rotary Kild costs)  
 From Soil Remedial technologies Screening, Radian 1991

 750<sup>00</sup>/TON (Avg cost) + 20% TRAIL burns and mobilization

$$\$900/\text{ton} \times \frac{1.4 \text{ TON}}{\text{cy}} = \$1,260/\text{cy}$$

Assume - stabilize + OFF-SITE dispose of 20% due to metal content.

 See  
 OFF-SITE  
 Disposal

$$11,500 \text{ cy} \times .2 = 2300 \text{ cy} = 3220 \text{ TON} \times \$230 \text{ TO STABILIZE} = \$740,600$$

$$\text{TRANSPORT } 3220 \text{ TON} \times \$30/\text{TON} = 96,600$$

$$\text{DISPOSAL } 3220 \text{ TON} \times 90/\text{TON} = 289,800$$

$$\$1,127,000$$



## GENERAL COMPUTATION SHEET

CLIENT NAME micellias  
PROJECT NAME 003-1

ON SITE TREATMENT

CALCULATION SET		
Prelim.		
Final		
Sheet <u>2</u> Of <u>2</u>		
Charge #		
Rev.	Comp. By	Chk'd By
	<u>RUD</u>	<u>REM</u>
	Date <u>5-20-93</u>	Date <u>5-21-93</u>
	Date	Date

Assume 80% incinerated + Backfilled

$11,500 \text{ cy} \times .8 = 9200 \text{ cy}$  TO BACKFILL

TRANSPORT SAME AS ABOVE  $\$2.25 \text{ cy}$

BACKFILL + compact

BACKFILL (means site work 1993)

(Pg 34 208/2420)  $\$2.21/\text{cy}$

compact (means site work 1993)

Pg 35 226/5620

$\$50/\text{cy}$

$\$2.71/\text{cy}$

$\$2.71$  cost ALSO applies to Ditch sediment.

TOTAL COST	Transport	2.25
	BACKFILL/compact	2.71
		<u><math>\\$4.96/\text{cy}</math></u>

**RADIAN**  
CORPORATION

## CONTACT REPORT

DATE 2/3/93 ORIGINATOR Craig Halloway  
CONTACT BY: TELEPHONE ☒ MEETING ☐ OTHER ☐

NAME, TITLE & ORGANIZATION
Steve Sanders, U.S. Ecology
ADDRESS & TELEPHONE NUMBER
Las Vegas (713) 253-6582
PURPOSE OR SUBJECT (Give project number if appropriate)
Disposal of PCB and Heavy Contaminated Soils

## SUMMARY

Steve said that U.S. Ecology's facility in Beatty, Nevada can accept dioxin contaminated wastes as long as they are not listed. He said that disposal costs would be around ~~\$~~ \$130/ton.

## ACTION

Use the Kettleman Hills facility.

## DISTRIBUTION:

Randy Marx  
Mark Galloway





## GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME OUB-1

Sensitivity Analysis

CALCULATION SET		
Prelim.		
Final		
Sheet <u>1</u> Of		
Charge #		
Rev	Comp By	Chk'd By
	<u>RVO</u>	<u>RCM</u>
	Date <u>5-21-93</u>	Date <u>5/2/93</u>
	Date	Date

① NO ACTION NOT SENSITIVE

② CAPPING - VOLUME INCREASE - NOT SENSITIVE

DOUBLE INTEREST RATE

$$ADF - 14\%, 30 \text{ yrs} = 7.003$$

$$PV \text{ of } 46,747 = 327,369$$

$$D = 580,084 - 327,369 = 252,715$$

% change (Project)

$$252,715 \div 2,044,502 = \boxed{12\%}$$

DOUBLE O + M

$$\text{Change} = 580,084$$

$$\% \text{ change } 580,084 \div 2,044,502 = \boxed{28\%}$$



## GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME DUP-1

Sensitivity Analysis

CALCULATION SET		
Prelim.		
Final		
Sheet 2 Of		
Charge #		
Rev	Comp. By	Chk'd By
	RUD	REM
	Date	Date
	5-21-73	5/21/73
	Date	Date

③ Excavate & Dispose

25% volume increase.

Δ Excavate 19,378  
Transport 120,750  
Dispose 362,250  
Stabilize 214,072  
Backfill 43,565  
760,015

$$\% \text{ project } 760,015 \div 5,626,009 = 14\%$$

Double Interest Rate - NO Affect

Double O&M - NO Affect

**RADIAN**  
CORPORATION

GENERAL COMPUTATION SHEET

CLIENT NAME McKELLAN  
PROJECT NAME DUB-1

Investment Analysis

Off-Site Incubation

25% Volume Increase

Δ	Excavate	19,378
	Transport	120,750
	Backfill	43,565
	Incubate	<u>8,050,000</u>

$$\% \text{ cap. } 8,233,693 \div 34,713,868 = \boxed{24\%}$$

Double Interest Rate - NO Affect

Double @ PM - NO Affect

CALCULATION SET		
Prelim.		
Final		
Sheet <u>3</u> Of		
Charge #		
Rev	Comp By	Chk'd By
	2.00	RSL
	Date 5-2-93	Date 5-2-93
	Date	Date





GENERAL COMPUTATION SHEET

CLIENT NAME McClelland  
PROJECT NAME 008-1

Exposition Area is

CALCULATION SET		
Prelim.		
Final		
Sheet <u>4</u> Of		
Charge #		
Rev	Comp. By	Chk'd By
	<u>BJD</u>	<u>REM</u>
	Date <u>5-2-93</u>	Date <u>5/2/93</u>
	Date	Date

5) 012-10 Treatment

35% Increase in volume

Excavate 19,378  
Transport 5,175

Treat 2898,000

Disposal 28,750

Backfill 4,833

% diff.  $3,209,136 \div 18,912,862 = 17.0\%$

Double Interest Rate - NO Affect

Double O&M - NO Affect



# GENERAL COMPUTATION SHEET

CLIENT NAME McClelland  
PROJECT NAME OUR-1

Comp. By: [Signature]

CALCULATION SET		
Prelim.		
Final		
Sheet <u>5</u> Of <u>6</u>		
Charge #		
Rev.	Comp. By	Chk'd By
	<u>RVO</u>	<u>REM</u>
	Date <u>5-2-93</u>	Date <u>5/2/93</u>
	Date	Date

⑥ CAP + Treating Charges  
25% Volume Increase - PO. Affect

Double Interest Rates  
± 252,715 (see notation)

$$\% \text{ direct } 252,715 \div 2,598,002 = 10\%$$

$$\text{Double OTM } 580,084 \div 2,598,002 = 22\%$$

⑦ Remove Principal Threat + CAP

25% Volume Increase

Excavate 7,414

Transport 46,200

Dispose 138,600

Stabilize 122,705

Backfill 13,674

$$\% \text{ direct } 328,593 \div 3,841,557 = \boxed{9\%}$$



GENERAL COMPUTATION SHEET

CLIENT NAME McClellan  
PROJECT NAME 00B-1

*See notes for details*

CALCULATION SET		
Prelim.		
Final		
Sheet <u>6</u> Of <u>6</u>		
Charge #		
Rev	Comp By	Chk'd By
	<u>RJD</u>	<u>REM</u>
	Date <u>5-2-88</u>	Date <u>5/2/93</u>
	Date	Date

Alt 7 (see #)

Double interest rate.  $1252,715 \div 3,841,557$   
 $= 7\%$

Double rate  $L: 580,084 \div 3,841,557 = 15\%$

## APPENDIX G

### Response to Comments

## RESPONSE TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COMMENTS

NOTE: Numbers shown in parentheses at the end of each response is the location of the response in the draft-final report.

### COMMENT 1, General Comment

*COMMENT SUMMARY: The OU B1 RI/FS Report is well written and the presentation and format should be followed in future RI/FS reports.*

#### Response:

Comment noted.

### COMMENT 2, Page S-5, Last Paragraph

*COMMENT SUMMARY: Remedial measures should be designed to prevent additional migration of contaminants from the site and into sediment and surface water runoff. These should be objectives of the proposed remedial action.*

#### Response:

Remedial action objectives have been included in the Draft-Final for surface water and stream sediment (pages S-6 and S-2).

### COMMENT 3, Page 2-15, Paragraph 6

*COMMENT SUMMARY: Widespread metal contamination may also be the result of metals being smeared by transport with storm water runoff.*

#### Response:

The explanation of widespread metal contamination has been revised to include the possibility of a smearing effect caused by storm water runoff (page 2-17).

**COMMENT 4, Page 3-7, Paragraph 5**

*COMMENT SUMMARY: Cadmium should be included in the list of inorganics found in sediments.*

**Response:**

Cadmium has been added to the list of inorganic species reported in sediments (page 3-6).

**COMMENT 5, Page 3-9, Paragraph 1**

*COMMENT SUMMARY: Root holes and cracks in hardpan layer add secondary permeability that is orders of magnitude greater than permeability value stated in text.*

**Response:**

Although secondary permeability may be present in the hardpan and in fine-grained layers in the vadose zone, the layers and their secondary permeabilities are not continuous. Furthermore, under unsaturated conditions, permeabilities are lower than those estimated for saturated conditions because of tension effects and capillarity. Permeabilities used in vadose zone modeling would result in greater hydraulic conductivity values than  $7 \times 10^{-6}$  meters/sec. The conductivity of  $2 \times 10^{-9}$  meters/sec cited in the paragraph is a reasonable average value for unsaturated conditions in the vadose zone beneath OU B1 (page 3-9).

**COMMENT 6, Page 3-10, Second Bullet**

*COMMENT SUMMARY: An asphalt cover is not completely impervious; some minor permeability value should be assigned.*

**Response:**

The model has been rerun with a pervious asphalt layer that allows soil gas emissions and infiltration. Text has been changed (page 3-10).

#### **COMMENT 7, Page 5-4, Table 5-2**

*COMMENT SUMMARY: The remediation goals for surface water need to be revised to include reference to the water quality objectives in the Inland Surface Waters Plan.*

#### **Response:**

Table 5-2 has been revised to reflect the water quality objectives in the Inland Surface Waters Plan (page 5-5).

#### **COMMENT 8, General Comment (Figure 8-1)**

*COMMENT SUMMARY: It is unclear what the eastward boundary of the elevated metals is since no data for SA 13 have been included. What are the concentrations of various metals that would necessitate capping if PCBs and dioxins were not present? Do concentrations of metals stay elevated into SA 13?*

#### **Response:**

Soil samples were not collected for inorganic analysis at SA 13 because there was no evidence of the use of metals at the location and PCB concentrations were low. The maximum PCB concentration was 32 mg/kg; only 3 out of 125 samples had concentrations greater than 3.5 mg/kg. Study Area 13 is already paved with asphalt and will be incorporated as part of the OU B1 cap. Cleanup levels for surface metal contamination have not been determined. A decision flow diagram has been included in the report that illustrates the decision logic that will be used to determine the cleanup levels for metals. The cleanup levels for metals are based on surface background concentrations and a one-in-one million risk using the current industrial scenario (page 2-16 and 5-5).

#### **COMMENT 9, General Comment**

*COMMENT SUMMARY: References should be made to the development of a monitoring and maintenance program for the capping alternative.*

#### **Response:**

A reference to the development of a monitoring and maintenance program and process for agency approval has been added to Section 8.1.2 (page 8-4).

**RESPONSE TO CALIFORNIA DEPARTMENT OF  
TOXIC SUBSTANCES CONTROL COMMENTS**

**GENERAL COMMENTS**

**COMMENT 1**

*COMMENT SUMMARY: The OU B1 RI/FS Report is well written and the presentation provided for easy review.*

**Response:**

Comment noted.

**COMMENT 2**

*COMMENT SUMMARY: Hot spot removal and capping should be evaluated.*

**Response:**

The removal of 3578 yrd<sup>3</sup> (5,009 tons above a concentration of 500 mg/kg PCBs) and capping the site has been evaluated. Details of this alternative are shown in Sections 7.2.8 (page 7-7) and 8.1.7 (page 8-9).

**COMMENT 3**

*COMMENT SUMMARY: The baseline risk assessment should include use of a residential scenario for comparative purposes only. The assumptions used for the residential scenario should be outlined and used as a standard for all future RI/FS reports.*

**Response:**

Risks to current off-site residents and hypothetical on-site residents have been evaluated in the Draft-Final Report. The methodology will be documented so that it can be repeated for future RI/FS reports (Section 4.0).



#### COMMENT 4

*COMMENT SUMMARY: The RI/FS process does not fulfill the requirements of CEQA.*

#### Response:

See U.S. EPA Comment 61.

#### COMMENT 5

*COMMENT SUMMARY: The extent of PCB contamination is not fully defined in the northern part of PRL 29. Before soils are moved from PRL 29 to the DRMO yard area, the extent of PCB contamination should be determined and data submitted to the regulatory agencies for review.*

#### Response:

The area in question has a maximum of 46 mg/kg of PCBs reported in surface soils. Prior to moving any PCB-contaminated soils at PRL 29, additional samples will be collected to determine the extent of PCB contamination in the northern part of PRL 29. Data will be presented to the regulatory agencies for review and comment (page 2-16).

#### COMMENT 6

*COMMENT SUMMARY: Operable Unit B1 should be described to include the drainage ditches extending from the DRMO area.*

#### Response:

The definition of the boundaries of OU B1 has been revised to include the drainage ditches extending from the DRMO area to Magpie Creek (pages S-1, 1-1, and 2-1).

#### COMMENT 7

*COMMENT SUMMARY: Performance criteria should be developed for the capping with treatability studies alternative.*

#### Response:

Performance criteria for achievable cleanup levels, secondary wastes produced, throughput, and cost are described in Section 8.1.6 (page 8-9).

#### COMMENT 8

*COMMENT SUMMARY: Discuss the development of a cap monitoring and maintenance program.*

#### Response:

See RWQCB Comment #9.

#### SPECIFIC COMMENTS

##### COMMENT 1, Page S-5

*COMMENT SUMMARY: Specific remediation goals should include remediating contaminated sediment from the adjacent drainage ditches.*

#### Response:

Text has been modified accordingly (page S-6).

##### COMMENT 2, Page 2-1, Col. 2, Paragraph 2

*COMMENT SUMMARY: The history should include placing solid planking down over the "hot spots" to prevent fugitive dust emissions.*

**Response:**

Sentence 5 of the paragraph has been revised as follows: "In 1992, after PCB contamination was reported in surface soils at the DRMO yard, a fence was constructed around the area containing at least 100 mg/kg of PCBs to restrict access, and solid metal planking was placed over the area to reduce fugitive dust emissions" (page 2-1).

**COMMENT 3, Page 2-5, Figure 2-3**

*COMMENT SUMMARY: A wind rose with data from 1960-1990 would be more appropriate — although probably not significantly different — than the wind summary from 1941-1967.*

**Response:**

Because the wind direction and distributions are probably not significantly different from the 1941-1967 and 1960-1990 time periods, the current wind rose in the report will not be revised.

**COMMENT 4, Page 2-16, Col. 1&2, Soil, Paragraph 4**

*COMMENT SUMMARY: It appears (from Table 2-3) that many of the metals exceeded the background values by more than five times (e.g., lead, cadmium, etc). The text references values that are not supported by Table 2-3. Please correct the discrepancies.*

**Response:**

Table 2-3 (now Table 2-4) shows the average, minimum, and maximum contaminant concentrations reported in all samples collected at OU B1. Surface and subsurface soil results were combined to produce Table 2-4; therefore, a direct correlation between inorganic results and surface and subsurface samples cannot be made. The table shows that 10 inorganic species were reported at greater than five times background concentrations in OU B1 soils. All ten of these inorganic species were reported at greater than five time subsurface background concentrations in surface soils samples; however only two inorganic species (selenium and silver) were reported at greater than five times background concentrations in subsurface soil samples. A note will be added to Table 2-4 to eliminate confusion (page 2-14).

#### COMMENT 5

*COMMENT SUMMARY: Root bores identified in silt and clay layers result in secondary permeability that will far exceed the stated permeability.*

#### Response

Secondary permeability in fine-grained layers is not continuous throughout the vadose zone. The movement of water or liquid contaminants as a result of primary or secondary permeability is impeded under unsaturated conditions. Both primary and secondary permeabilities were considered in estimating average permeabilities and average groundwater conductivities for the entire vadose zone (page 3-9).

#### COMMENT 6

*COMMENT SUMMARY: The exposure scenario selection should include a standardized residential scenario.*

#### Response:

Risks to current off-site residents and hypothetical on-site residents has been evaluated in the Draft-Final Report (Section 4.0).

#### COMMENT 7

*COMMENT SUMMARY: Develop a "Hot Spot" removal and capping alternative.*

#### Response:

See DTSC general Comment #2.

#### COMMENT 8, Appendix E, ARARs Identification

*COMMENT SUMMARY: 1) The appendix should include the ARARs submitted to McClellan AFB on March 26, 1993. 2) Section 1.2.4 should include further discussion of Land Disposal Restrictions to include disposal of the dioxins/furans. 3) The RI/FS does not fulfill the requirements of CEQA.*

**Response:**

- 1) All ARARs submitted at the 26 March 1993 meeting have been added to Appendix E.
- 2) Section 1.2.4 (Appendix E) has been amended to address dioxin/furan LDRs.
- 3) See U.S. EPA Comment 61 for U.S. EPA's position on NEPA/CEQA issues.

## RESPONSES TO DTSC OFFICE OF SCIENTIFIC AFFAIRS

### GENERAL COMMENTS

#### COMMENT 1

*COMMENT SUMMARY: Minor grammatical or typographical should be corrected for the final copy.*

#### Response:

Minor typographical and grammatical errors have been addressed.

#### COMMENT 2

*COMMENT SUMMARY: Future changes to the report should be clearly identified.*

#### Response:

Additions to the text are identified by shading, and deleted text is crossed out. In addition, the page numbers where the correction has been made is included with these responses.

#### COMMENT 3

*COMMENT SUMMARY: The DTSC Office of Scientific Affairs feels it is necessary to evaluate the residential exposure scenario for all areas of McClellan AFB.*

#### Response:

A current off-site residential scenario and hypothetical on-site residential scenario has been included in the Draft-Final Report (Section 4.0).

## SPECIFIC COMMENTS

### COMMENT 1, Page S-6

*COMMENT SUMMARY: Proposed RCRA Subpart S, Part 264, should not be an ARAR.*

#### Response:

Reference to Subpart S has been deleted (page S-7).

### COMMENT 2, Table 2-3, Page 2-10.

*COMMENT SUMMARY: It is not clear whether all PCBs were analyzed for or just one mixture.*

#### Response:

All PCB Aroclors were analyzed for; however, only Arochlor 1260 was reported (page 2-7).

### COMMENT 3, Section 2.2.4, Page 2-16

*COMMENT SUMMARY: Please clarify the last sentence of the first paragraph in the second column. A lack of contamination cannot indicate contamination.*

#### Response:

The sentence has been deleted (page 2-18).

### COMMENT 4, Vadose Zone Modeling, page 3-9

*COMMENT SUMMARY: Would closure of McClellan AFB affect the assumption that current conditions will not change for 30 years?*

### Response

Closure of McClellan AFB would change the assumption and affect model results only if land use changed significantly. If OU B1 was used for industrial purposes after base closure, current conditions would not be significantly affected. If OU B1 were converted to residential or recreational (e.g., park or golf course), surface water infiltration rates could change and depth to the saturated zone could change.

### COMMENT 5

*COMMENT SUMMARY: Review and understanding of the Appendix D tables would be facilitated by numbering the tables and referencing them in the text.*

### Response:

The Appendix D tables have been numbered and referenced in the text in the Draft-Final Report.

### COMMENT 6

*COMMENT SUMMARY: The logic used in the selection of some chemicals and elimination of others is not made clear. Please expand the text to show the chemicals of concern in each medium. Please also show ranges of concentrations of chemicals and ranges of detection limits in each medium.*

### Response:

A more detailed description of the chemical of concern selection criteria has been provided in the Draft-Final Report (page 4-2). In addition, chemicals of concern by media have been presented in Section 4.1 (page 4-1). Tables showing ranges of reported concentrations and detection limits in soil and soil gas are contained in Appendix D. Similar tables will be prepared for the surface water and sediment data when they are available.



#### COMMENT 7, Comparison of Levels of Concern, Pages 4-1 and D-28ff

*COMMENT SUMMARY: The concentration-toxicity screen seems to have merit for this site. However, the reason for application of this tool and the criteria used to evaluate the results are not clearly laid out.*

#### Response:

The selected screening technique was used because the results were available and because it is a more sophisticated method than the concentration-toxicity method presented in RAGS (U.S. EPA, 1989). The explanation of the methodology has been expanded in the Draft-Final Report (page 4-2).

#### COMMENT 8

*COMMENT SUMMARY: Because base closure is a possibility, a residential scenario is appropriate for all areas.*

#### Response:

Current off-site residential and hypothetical on-site residential scenarios have been included in the Draft-Final Report (Section 4.0).

#### COMMENT 9

*COMMENT SUMMARY: OSA supplemental guidance recommends the following values for dermal absorption: cadmium - 0.1%, arsenic - 3%, other metals - 1%. The calculations shown do not account for dermal absorption of cadmium. It is also inconsistent with Table 4-2, which states that the bounding case includes 1% dermal absorption of inorganics.*

#### Response:

The recommended dermal absorption values have been used in the RME cases of the Draft-Final Report (Appendix D). The Draft Report used a 1% absorption value for cadmium's noncarcinogenic effects evaluation. Dermal absorption of cadmium was not evaluated in the cancer risk calculations because cadmium is not considered carcinogenic by this route.

**COMMENT 10**

*COMMENT SUMMARY: The cursory ecological evaluation is adequate because nearly all native habitat has been removed by various anthropogenic activities (pages 4-19 through 4-21).*

**Response:**

Comment noted.

## RESPONSE TO U.S. EPA COMMENTS

### GENERAL COMMENTS

#### COMMENT 1

*COMMENT SUMMARY: Discussions of specific physical characteristics, data limitations, and contaminant fate should be included in the report for completeness.*

#### Response:

The report has been revised to include additional discussions of physical characteristics, contaminant fate, and data limitations where specific comments were made. However, only limited discussions have been added to keep with the overall original theme of the report.

#### COMMENT 2, Table of Contents

*COMMENT SUMMARY: The Table of Contents contains several errors.*

#### Response:

The Table of Contents has been corrected (pages i - x).

#### COMMENT 3

*COMMENT SUMMARY: It is recommended that the evaluation of post-remediation risks be discussed in the feasibility section of the report.*

*The assumption that the cap will eliminate vapor phase releases is false.*

#### Response:

The results of the post-remediation scenarios is discussed in Section 8.3 (page 8-12).

The evaluation of risks after cap installation has been changed to include a semipermeable surface layer in the VAPOUR-T modeling runs (simulating a semi-permeable asphalt cover). Risks were evaluated from the calculated surface vapor fluxes.

**COMMENT 4, Appendix C, page C-2 and Table C-2**

*COMMENT SUMMARY: Additional narrative is requested in Appendix C to clarify location, areal extent, and concentration values on Figures C-1 through C-10. Differences in soil physical parameters, listed in Table C-2 for different compounds were questioned.*

**Response:**

Additional text has been added on page C-2 to clarify questions raised regarding physical and chemical data used in modeling. The physical parameter differences in Table C-2 are the result of site differences. Differences in values used will be explained in text (Appendix C, page C-2.)

**COMMENT 5, Appendix C, Section C-2, Importance Ranking of Transport Mechanisms**

*COMMENT SUMMARY: A technical basis for the importance ranking is recommended instead of general ranking terms. On page C-20, dioxin and furan compounds should be listed as contaminants detected in sediments samples downstream from OU B1.*

**Response:**

A technical basis is provided for each of the qualitative rankings. For several of the mechanisms, there are no analytical or modeled data. It is inappropriate to include data from other sites to evaluate mechanisms for OU B1. Qualitative rankings of mechanisms were included in an effort to assist the reader of the RI/FS. The rankings have been deleted, and only the information available for OU B1 has been cited (Appendix C, pages C-20 to C-22).

Dioxin and furan compounds were inadvertently left out of the sentence reporting contaminants detected in sediments. However, this discussion has been deleted (Appendix C, page C-20.)

## **SPECIFIC COMMENTS**

### **COMMENT 1, Page S-1, Executive Summary, Paragraph 1**

*COMMENT SUMMARY: The locations of the DRMO storage yard, the CE yard, and the unpaved area between them are not clearly shown on Figure S-1. The title of Figure S-1 is unclear.*

#### **Response:**

Text denoting the DRMO and CE yards and the grass area between them have been added to the figure. Definitions of PRL and SA have been added to the legend (page S-2, Figure S-1).

### **COMMENT 2, Page S-1, Executive Summary, Site Background, Paragraph 1**

*COMMENT SUMMARY: A figure should be added showing the planking in the DRMO yard, the paved CE storage yard, the grass area, the transformer oil spill area, and the removal action area.*

#### **Response:**

These areas have been more clearly marked on Figure S-1 (page S-2).

### **COMMENT 3, Page S-1, Executive Summary, Site Background, Paragraph 2**

*COMMENT SUMMARY: The use of general terms such as "surrounding areas" and "nearby land" (when referring to surrounding land use) is discouraged because it is not definitive. It is recommended that specific distances be used instead of general terms for distances and supportive figures and tables be provided.*

#### **Response:**

A reference to the land use figure (from which specific distances may be calculated) has been added to the text (page S-1). A reference to the distance to nearby residences has also been added (page S-3).

**COMMENT 4, Page S-3, Executive Summary, Distribution of Contamination,  
Paragraph 1**

*COMMENT SUMMARY: For consistency and completeness, all secondary contaminants of concern should be listed.*

**Response:**

Secondary COCs have been identified for clarity (page S-3).

**COMMENT 5, Page S-4, Executive Summary, Vadose Zone Contamination,  
Paragraph 4**

*COMMENT SUMMARY: The text implies that the water table has declined from 21 to 105 feet below ground surface (BGS), and that VOCs reported in the soil gas in those depths are the result contamination that adsorbed onto soil as the water table declined. However, the text does not include a time frame for the implied water levels nor the source of the measurements.*

**Response:**

The implication that the water table was once at 21 feet BGS is in error: the water table was approximately 55 feet BGS in the 1960s. Water levels at McClellan AFB have been measured quarterly since 1986. In that time, water levels have declined 50 feet. Furthermore, as is explained more fully in Section 2, no HVOCs were reported between 30 and 80 feet BGS; at 80 feet BGS, however, HVOCs were reported in soil gas at 11,600 parts per billion by volume (ppbv). It is this deeper contamination that is believed to be the result of groundwater contamination that adsorbed onto soils as the water table declined. The text has been changed to clarify the situation and remove the erroneous implication. To keep the Executive Summary concise, the source of the measurements has not been added here; it is available in Section 2 (page S-4).

**COMMENT 6, Page S-4, Executive Summary, Potential for Contaminant Transport,  
Paragraph 1**

*COMMENT SUMMARY: This is a unique reference to "animals" in the RI/FS report. Reference to animals should be expanded throughout the report or deleted.*

**Response:**

The reference to animals on this page has been deleted. Any reference to non-human risks has been referenced in the Section on Ecological Assessment (page S-4).

**COMMENT 7, Page S-4, Executive Summary, Potential for Contaminant Transport, Paragraph 2**

*COMMENT SUMMARY: Polychlorinated biphenyls (PCBs) are not volatile. Text should be revised to indicate the compounds are carried by volatile compound vapors only.*

**Response:**

PCBs will volatilize and migrate by diffusion in soil gas. The compounds have vapor pressures at 20 C. There are carcinogenic risks associated with PCB vapor inhalation (see Risk Assessment Section). Trichloroethene (TCE) or other highly volatile compounds are not present in sufficient concentrations in the PCB-contaminated area to act as carrier gases. Statements relating to PCB in the vapor phase on this page have not been revised.

**COMMENT 8, Page S-5, Executive Summary, Remedial Action Objectives, Paragraph 7**

*COMMENT SUMMARY: Insert the phrase "working risk assessment" before "guidance" in the phrase "U.S. EPA guidance standards."*

**Response:**

Text has been changed accordingly (page S-6).

**COMMENT 9, Page S-6, Executive Summary, Applicable or Relevant and Appropriate Requirements (ARARs)**

*COMMENT SUMMARY: The discussion of RCRA should mention that California is now authorized (to implement RCRA), and should list the state's additional or more stringent requirements. Also, RCRA corrective action requirements should be listed as a "To Be Considered" (TBC), not an ARAR.*

**Response:**

Text has been changed both in the Executive Summary and Section 5.0 to reflect the California DTSC as the lead agency for RCRA (pages S-7, 5-1). RCRA corrective action levels were removed as a key TBC.

**COMMENT 10, Page S-7, Executive Summary, Screening of Technologies, Process Options, and alternatives, Paragraph 10**

*COMMENT SUMMARY: The text only mentions seven screening criteria; it does not mention agency and community acceptance. These two criteria and the timeframe in which they are applied, should be mentioned in the Executive Summary.*

**Response:**

The text has been changed accordingly (page S-8).

**COMMENT 11, Page 2-1, Operable Unit B1, Paragraph 1**

*COMMENT SUMMARY: It is recommended that a figure be added which identifies the location of the open storage lot; transformer storage, loading, and unloading areas; and the CE storage yard.*

**Response:**

A new figure has been added that shows the site features (page 2-2, Figure 2-1).

**COMMENT 12, Page 2-1, History, Paragraph 2**

*COMMENT SUMMARY: The text should be revised to indicate the type of plastic liner that was placed over the area to control dust and surface water runoff.*

**Response:**

The text has been revised to indicate that the a "45-mil HDPE liner was placed over the area" (page 2-1).



**COMMENT 13, Page 2-3, History, Paragraphs 4, 5, and 6**

*COMMENT SUMMARY: A figure should be added that shows the current physical features of OU B1 (e.g., unpaved areas, barbed wire fences, and open drainage ditches).*

**Response:**

A figure has been added to show the current physical features of OU B1 (Figure 2-1, page 2-2).

**COMMENT 14, Page 2-3, Physical Characteristics of OU B1, Paragraph 1**

*COMMENT SUMMARY: A description of urban soils should be provided because urban soils are not part of a normally applied soil classification system.*

**Response:**

Urban soils are described in the first paragraph of Section 2.1.4, Physical Characteristics of OU B1. Mention of urban soils has been added to Section 2.2.3, Extent of Contamination in Surface Soils (page 2-10).

**COMMENT 15, Page 2-3, Physical Characteristics of OU B1, Paragraph 2**

*COMMENT SUMMARY: The depth to groundwater below ground surface (BGS) is presented as 100 feet BGS in Section 2 and 105 feet BGS in the Executive Summary. This discrepancy should be corrected.*

**Response:**

The text has been revised to consistently state that the depth to groundwater is 105 feet BGS (page 2-24).

**COMMENT 16, Page 2-5, Figure 2-3, Physical Features of OU B1**

*COMMENT SUMMARY: Several features shown on Figure 2-3 require clarification. The large blue arrows should be identified as "direction of surface flow," the numerous stippled*

*patterns shown in the figure should be described in the legend. Physical features such as fences and the liner should also be identified.*

**Response:**

Figure 2-3 (now Figure 2-4, page 2-6) has been revised to include the recommendations. A new figure has been added to show current site features, such as, fences and the liner (see U.S. EPA specific comment 13 [Figure 2-1]).

**COMMENT 17, Page 2-8, Figure 2-4, Previous Sampling Locations**

*COMMENT SUMMARY: Please resolve the discrepancy between Figure 2-4 and Table 2-1. Table 2-1 indicates that seven McLaren borings were drilled; however, only six boring locations are shown on the Figure 2-4.*

**Response:**

Figure 2-4 (now Figure 2-5) has been revised to show all seven McLaren sampling locations (page 2-10).

**COMMENT 18, Page 2-9, Paragraph 1**

*COMMENT SUMMARY: The QA/QC summary did not state whether data validation procedures did not follow the CLP Functional Guidelines; data may not be valid if these procedures were not followed.*

**Response:**

The CLP Functional Guidelines were not used to validate project data because the data were not produced using CLP protocols. The data validation procedures followed for all McClellan AFB projects are described in the Basewide QAPP, which was reviewed and approved by U.S. EPA, Air Force, DTSC, and other agency representatives. The level of review performed for all data has been agreed upon and considered adequate to validate data for the intended uses (e.g., risk assessment). CLP-type validation was performed for selected analytical batches of OU B data, as described in the QAPP (pages 2-7 and 2-16).

**COMMENT 19, Page 2-15, Extent of Contamination in the Vadose Zone, Paragraph 1**

*COMMENT SUMMARY: The text implies that the capillary fringe is 5 feet thick. Please provide the technical basis or reference to substantiate the capillary fringe thickness.*

**Response:**

It is assumed that the capillary fringe is approximately 3 to 5 feet thick; however, the thickness is most likely variable because of differences in pore size of the different lithologic types found just above the water table. The first sentence of paragraph 1 has been revised as follows: "From the ground surface to the water table (105 feet BGS), vadose zone deposits beneath OU B1 consist of interbedded sands, silts, and thin clay lenses" (page 2-17).

**COMMENT 20, Page 2-16, Extent of Contamination in the Vadose Zone, Paragraph 1**

*COMMENT SUMMARY: For completeness, provide the depositional or non-depositional environments for the carbon coated root casts, organic debris, and carbonaceous materials.*

**Response:**

The text has been revised to indicate that a nondepositional environment is characteristic of soils with carbon coated root casts, organic debris, and carbonaceous material (page 2-18).

**COMMENT 21, Page 2-17, Extent of Contamination in Sediments and Surface Water, Paragraph 3, 4, 5, 6, and Bullets**

*COMMENT SUMMARY: A figure should be provided and reference in the text showing the locations of the drainage ditches at OU B1.*

**Response:**

Figure 2-6 (now Figure 2-7) has been revised to show more clearly the locations of the drainage ditches at OU B1. A brief description of the locations of the different drainage ditches is included in Section 2.1.1 (Figure 2-7, pages 2-19 and 2-4).

**COMMENT 22, Page 2-17, Extent of Contamination in Sediments and Surface Water, Paragraph 7**

*COMMENT SUMMARY: Additional sediment sampling is planned for the OU B1 ditches. It is recommended that the results and conclusions be made available for review as soon as possible in order to keep the project moving along as scheduled.*

**Response:**

As soon as practical the regulatory agencies will be informed of the sediment sampling results and any conclusions made. The text has been revised to include the most recent PCB and dioxin results (pages 2-19 and 2-22).

**COMMENT 23, Page 2-18, Figure 2-5, Cross-Section: A-A' of OU B1**

*COMMENT SUMMARY: The cross section inset should be revised to more clearly show the borings that were used in the cross section. Because the continuity and interfingering of lithofacies is questionable between the borings additional question marks should be added between the borings. If additional data exists, they should be included to refine the understanding of the subsurface lithology.*

**Response:**

The cross section inset has been revised to show the boring names and locations that were used in the cross section. Question marks have been added between borings that are greater than 50 feet apart to emphasize the heterogeneity of the lithologic deposits. No additional data are available to refine the lithologic model (page 2-20).

**COMMENT 24, Page 2-19, Figure 2-6, Sediment Sampling Locations at OU B1**

*COMMENT SUMMARY: Several issues require attention: 1) sediment sample results indicate that a large volume of contaminated sediment may require immediate removal; 2) data for the nine planned sediment sample locations will not be available until the draft-final OU B1 RI/FS report is submitted; 3) no existing or planned sediment sampling exists for the eastern-most portion of Figure 2-6 even though Figure 2-3 shows that surface runoff flows toward that area with a slope of approximately 2 vertical feet per 150 horizontal feet.*

**Response:**

- 1) The actual extent of contaminated sediment was not be known until the middle of May 1993. Because the ditch only receives surface water runoff during rain storms, and the rainy season is almost over, there is no reason for immediate removal of contaminated sediments. However, a remedial action should be completed before the next rainy season if the contaminated sediments pose an unacceptable risk.
- 2) Data will be made available to the regulatory agencies as soon as practical. Dioxin, furan, and PCB data have been incorporated into the draft-final OU B1 RI/FS report (pages 2-19 and 2-22); inorganic data will be incorporated into the final OU B1 RI/FS report. Appropriate sections of the OU B1 RI/FS report will be revised and delivered to the regulatory agencies prior to the submission of the final OU B1 RI/FS report.
- 3) Sediment sampling is not planned for the eastern part of OU B1 because only low levels of PCBs were reported, the area is paved, and runoff flows into the basewide storm sewer system.

**COMMENT 25, Page 2-20, Extent of Contamination in Sediments and Surface Water, Surface Water**

*COMMENT SUMMARY: 1) The bulleted items in the text should be directly keyed to sample identification numbers on Figure 2-7. 2) The text states that samples were collected from five locations, but Figure 2-7 shows that at location EM-3 either no sample (NS) was collected or results were not reported (NR) for each of the three storm events. 3) Conclusions regarding the presence of contamination in the southern part of OU B1 can not be drawn due to a lack of data for sample location EM-3. 4) Eighteen out of thirty total sample results presented on Figure 2-7 were listed as not reported or not sampled and are therefore an incomplete data set. It is recommended that this section of text be revised for accuracy and completeness.*

**Response:**

- 1) Sample identification numbers have been included in the bulleted text to aid in evaluating the conclusions (page 2-22).
- 2) Not reported is equivalent to "not detected"; it does not mean that results were not received. No samples were collected at sample location EM-3 during the first and third storm events. Samples were collected during the second storm event at EM-3 for PCBs and dioxins; however, no contaminants were detected (reported) in the samples.

3) The conclusion made ("Surface water runoff from the southern part of OU B1 is not contaminated with PCBs, dioxins, or furans") is based upon sample results from one storm event. It is possible that during other storm events surface water has been contaminated. Therefore, the text has been changed to caveat the conclusion by stating that it is based on only one sampling event (page 2-22).

4) Nineteen surface water samples were collected during the three storm events. Of the 19 samples, contaminants were reported (detected) in 12 samples and not reported (detected) in 7 samples. The data set is adequate for the primary objective — to determine if contaminants are present in the surface water at OU B1. Remedial actions taken at OU B1 will be designed to eliminate contaminant migration via surface water runoff from OU B1 to the drainage ditches. The section has been revised to more clearly define what "not reported" is and discuss the uncertainties associated with the conclusions made (pages 2-22 and 2-24).

#### **COMMENT 26, Page 2-20, Extent of Groundwater Contamination**

*COMMENT SUMMARY: The text should clarify the historic groundwater levels with respective dates. The text should be revised to reflect the mobility of and the potential impact to the groundwater by PCBs, dioxins, and furans if the groundwater was indeed as shallow as 21 feet BGS during the time a spill occurred or the site was used for storage.*

#### **Response:**

The following is a summary of average water level at McClellan AFB from the 1940s to present:

- 1940s — 33 feet BGS;
- 1950s — 44 feet BGS;
- 1960s — 55 feet BGS;
- 1970s — 68 feet BGS;
- 1980s — 83 feet BGS; and
- 1990s — 105 feet BGS.

Average water levels were estimated for the 1960s to 1990s from potentiometric isopleth maps from the McClellan AFB Preliminary Groundwater Operable Unit Remedial Investigation (PGOURI). Water levels from the 1940s and 1950s were inferred from R.J. Shlemon, "Landfarm — Soil Relationships in Northern Sacramento County, California," an unpublished Ph.D dissertation (University of California, Berkeley, 1967).

Storage activities began in the early 1960s at OU B1. At that time, the depth to groundwater was approximately 55 feet BGS. It is unlikely that PCBs, dioxins, or furans would have migrated through 55 feet of vadose zone to reach groundwater. The text has been revised to more clearly present this information (page 2-24).

**COMMENT 27, Page 2-22, Figure 2-8, Isopleths of Total VOC Concentrations and Water Level Contours in the A Zone at OU B1**

*COMMENT SUMMARY: It is recommended that all data be presented and discrepancies between contaminant isopleths and groundwater flow be resolved. In addition, if data are not available for all of the wells shown, those wells should be noted on Figure 2-8.*

**Response:**

Data are presented for all monitoring wells shown on Figure 2-8. Hydropunch® sample results have been added to the summary table. Groundwater samples have not been collected from the piezometers, which is noted on Figure 2-8 (now Figure 2-9, page 2-25). Groundwater beneath OU B1 is located along the western fringe of a contaminated groundwater plume that extends from the north to south toward Base Well 18; the contaminant isopleths and potentiometric surface shown are correct.

**COMMENT 28, Page 3-1, Evaluation of Contaminant Transport, Paragraph 1**

*COMMENT SUMMARY: More definitive statements regarding transport of VOCs to exposure pathways are recommended. It is requested that text be revised to state if contaminant pathways are complete.*

**Response:**

Text has been modified to clarify that the transport pathway for subsurface VOCs to air is complete and that modeling indicates the transport pathway to groundwater is not and will not be complete within the next 30 years (page 3-1).

**COMMENT 29, Page 3-4, Contaminant Properties, Paragraph 6**

*COMMENT SUMMARY: A duplication of the same 2 lines on 2 pages is indicated.*

**Response:**

The duplicated lines have been deleted from text (page 3-6).

**COMMENT 30, Page 3-4, Contaminant Properties, Paragraph 8**

*COMMENT SUMMARY: Recommendation is made to revise text and Table 3-1 references on persistence designations of organic compounds for clarification.*

**Response:**

Statements describing the persistence of organic compounds have been revised for clarity (page 3-4).

**COMMENT 31, Page 3-4, Mechanisms of Transport, Paragraph 1**

*COMMENT SUMMARY: The recommendation is made to use consistent wording in text and Figure 3-1. Clarification of several terms in Table 3-2 is requested.*

**Response:**

Terms used in Figure 3-1 have been revised to be consistent with text (page 3-5). Table 3-2 has been revised to clarify terms used (page 3-7).

**COMMENT 32, Page 3-4, Potential for Surface Transport, Paragraph 1**

*COMMENT SUMMARY: The recommendation is made that percentages for uncovered soil areas in OU B1 should be consistent throughout Section 3.0 and Appendix C.*

**Response:**

The portion of the text referring to the percentage of uncovered soil in Appendix C has been deleted.



**COMMENT 33, Page 3-4, Surface Air Transport Pathway, Paragraph 2**

*COMMENT SUMMARY: Volatilization mechanism for PCBs must be attributed to VOCs acting as a carrier gas. Clarification of this condition is requested in text.*

**Response:**

PCBs will enter the vapor phase and will migrate in soil gas by diffusion without VOC presence in the vapor phase. Soil gas is the only carrier necessary. Text has not been revised.

**COMMENT 34, Page 3-7, Surface Water Pathway, Paragraph 2**

*COMMENT SUMMARY: The recommendation is made to include dioxin and furan compounds in a statement describing contaminants reported in sediment samples downstream from OU B1.*

**Response:**

Text has been revised to include dioxins reported in sediments (page 3-6).

**COMMENT 35, Page 3-7, Potential for Subsurface Transport, Paragraph 1**

*COMMENT SUMMARY: Statements here and on page 3-4 regarding percentage of soil surface covered appear to be inconsistent. Use of consistent values is requested.*

**Response:**

Text has been revised to indicate that, because the PSP contains perforations, which provide additional, but discontinuous, exposure of the soil surface to the atmosphere, 27% of the soil surface remains uncovered (page 3-9).

**COMMENT 36, Page 3-9, Potential for Subsurface Transport, Paragraph 2**

*COMMENT SUMMARY: The cemented hardpan layer described in text is not illustrated in Cross section A-A', page 2-18; text and figure should be consistent.*

**Response:**

The hardpan layer, cited on page 3-9, has been added to Cross section A-A' (page 2-20).

**COMMENT 37, Page 3-9, Vadose Zone Modeling, Paragraph 1**

*COMMENT SUMMARY: Recommendations are made to explain the 30-year duration selected for modeling and to estimate "breakthrough times."*

**Response:**

Text has been added to explain the 30-year model duration. The number of years over which migration would cause contaminants to reach groundwater in measurable amounts has been estimated (page 3-10 and Appendix C, Page C-2).

**COMMENT 38, Page 4-1, Identification of Potential Chemicals of Concern, Paragraph 5**

*COMMENT SUMMARY: Benzene was not selected as a chemical of concern. This is contrary to EPA Region 9 guidance which states that Group A carcinogens reported at a site should not be eliminated from the list of chemicals of concern (COCs) based on frequency of detection, comparison to background, or other selection criteria.*

**Response:**

Benzene was eliminated because the concentration-toxicity screening procedure indicated that its cancer risk would be insignificant compared to other compounds. Benzene has been included as a COC in the Draft-Final OU B1 RI/FS Report.

**COMMENT 39, Page 4-1, Identification of Potential Chemicals of Concern, Paragraph 5**

*COMMENT SUMMARY: A more complete description of the COC selection criteria should be provided.*

**Response:**

A more complete description of the COC selection criteria has been included in Section 4.1 of the Draft-Final OU B1 RI/FS Report (page 4-2).

**COMMENT 40, Page 4-2, Potentially Exposed Populations, Paragraph 4**

*COMMENT SUMMARY: The potential for residential development does exist, therefore the risk assessment should be modified to include a residential scenario.*

**Response:**

A hypothetical on-site residential scenario has been included in the Draft-Final Report (Section 4.0).

**COMMENT 41, Page 4-3, Exposure Concentrations, Paragraph 1**

*COMMENT SUMMARY: It is not clear if the soil gas determinations were from field screening soil gas measures or from estimations of volatile emissions from soil based on Henry's law constants and soil concentrations of contaminants.*

*Since the use of soil gas data would be inappropriate in a risk assessment, clarification of this point is necessary.*

**Response:**

As stated in Section 4.3.1 (page 4-4), surface vapor fluxes were calculated by modeling (VAPOUR-T) soil gas data. A more complete description of this process has been provided in Sections 3 and 4 and Appendix D of the Draft-Final OU B1 RI/FS.

As stated in the Risk Assessment Consensus Statement, "The use of soil gas data to support decisions at McClellan AFB IRP is described in the Soil Gas Consensus Statement, which became effective as of October 1992. This soil gas consensus statement promotes and expands the use of soil gas data beyond screening purposes. The decision to use soil gas data stems from the observation that the conventional soil VOCs measurements significantly underestimate the VOCs present in soils. ... The VOCs contamination as characterized and inferred by soil gas data will be used to support a variety of uses: delineating zones targeted for cleanup, estimating the VOC flux from the vadose zone to exposure points such as

groundwater and the soil surface, performing risk assessment, and evaluating and selecting remedial alternatives."

**COMMENT 42, Page 4-4, Table 4-1, Exposure Pathway**

*COMMENT SUMMARY: Surface water and sediment exposure would be significant pathways for potential residents, and should be included in the risk assessment.*

**Response:**

These pathways have been included in the Hypothetical On-Site Residential Scenario of the Draft-Final OU B1 RI/FS Report. The pathways were not completed for the off-site residential scenario, and were therefore not included.

**COMMENT 43, Page 4-5, Exposure Concentrations, Concentrations in Soil, Paragraph 2**

*COMMENT SUMMARY: 1) It is unclear whether the asphalt cap referred to includes areas currently paved or if this refers to the asphalt cap that may result as a remediation option. 2) The assumption that the remedial asphalt cap would prevent exposures to potential residents or construction workers is in error.*

**Response:**

- 1) The asphalt cap referred to the one that could be potentially installed as a remedial action.
- 2) In the Draft OU B1 RI/FS, risks to potential residents and construction workers were not evaluated with or without the remedial cap. In the Draft-Final OU B1 RI/FS Report, risk reduction achieved by a semipermeable cap has been evaluated for the current on-site workers. (See response to U.S. EPA General Comment 3b.)

**COMMENT 44, Page 4-5, Surface Emissions and Ambient Concentrations**

*COMMENT SUMMARY: 1) Additional discussion of the time-weighted averaging used to calculate air exposures is required to present the reader with a complete understanding of the methods used. 2) The dust inhalation pathway calculations should be presented to support its*

*elimination based on insignificance. 3) The assumption that the cap will eliminate vapor phase releases should be reevaluated for the long-term.*

**Response:**

- 1) A more detailed description of the time-weighted averaging and the wind-direction-sensitive box model has been presented in Section 4.3.1 (page 4-9) and Appendix D.
- 2) As indicated in Table 4-1, the dust inhalation pathway was included in all Current and the Partial Cap Scenarios. It was not included in the post-remediation scenarios because the asphalt cap, which covers the entire site, would prevent dust emissions from underlying soils.
- 3) Vapor emissions through the asphalt cap have been included (page 4-9).

**COMMENT 45, Page 4-7, Toxicity Assessment, Paragraph 1**

*COMMENT SUMMARY: The reference for California EPA toxicity values does not appear to be correct. The Appendix D toxicity tables do not reference sources of individual values.*

*The highest of the current EPA and California EPA slope factors, and the lowest of the references doses should be used. This should be clarified in the text.*

**Response:**

The correct reference for the California EPA toxicity values is included in the Draft-Final OU B1 RI/FS Report. References for individual toxicity values have been provided.

The highest of the U.S. EPA and California EPA slope factors were used. Only U.S.EPA reference doses were used. This has been clarified in the Draft-Final OU B1 RI/FS Report (page 4-10).

**COMMENT 46, Page 4-10, Uncertainty Analysis**

*COMMENT SUMMARY: The results of the lead spread modeling should be discussed in the text.*

*The "bounding" case should also be referred to as the reasonable maximum exposure case or RME.*

**Response:**

A more detailed discussion of the blood lead modeling results is presented in Section 4.5 (page 4-15).

The "bounding" case has been renamed the RME in the Draft-Final Report.

**COMMENT 47, Page 5-1**

*COMMENT SUMMARY: Stating that allowing DRMO to continue operating in a remedial action objective may be inappropriate.*

**Response:**

This remedial action objective has been eliminated from Table 5-1. This does not effect the analysis of alternatives since affect on DRMO operations is already covered in analyzing alternatives under the implementability criteria. The negative impacts of shutting down the DRMO are summarized.

**COMMENT 48, Page 5-1**

*COMMENT SUMMARY: A specific RCRA hazardous waste determination should be performed to determine whether remedial action is in compliance with RCRA.*

**Response:**

Both a RCRA and California hazardous waste determination would be important in determining whether RCRA and California hazardous waste regulations, specifically LDRs, are ARARs. At present, data suggest that OU B1 soils are California hazardous because of PCB and lead exceedance of TTLCs. There is no documentation of the soils being RCRA hazardous at this time, because PCBs are not RCRA wastes and the dioxins are not from RCRA-listed sources. However, TCLP analyses would have to be performed on the soils to determine whether TCLPs for such constituents as lead, cadmium, and arsenic are being exceeded. These analyses have been added to the cost estimates.

**COMMENT 49, Table 5-1**

*COMMENT SUMMARY: The assumption for the cap listed in this table, i.e., limited rainfall infiltration, reasonable life span, maintained throughout design life, should be changed to exactly match those used in the modeling.*

**Response:**

The remedial action objectives for the cap have been changed to match the modeling assumptions (Table 5-1).

**COMMENT 50, Table 5-2**

*COMMENT SUMMARY: The remediation goal for the sediments too undefined.*

**Response:**

A decision logic for the sediments has been prepared and incorporated into Table 5-2. In general, sediments will have the same remediation goals as soils at OU B1.

**COMMENT 51, Table 5-3**

*COMMENT SUMMARY: The depths of contamination in Table 5-3 and on page 2-16 are not consistent.*

**Response:**

For purposes of calculating volumes of soil to be removed, it is important to be conservative to ensure that all soil exceeding cleanup levels is remediated. Therefore, 1-foot has been added to the known depth of contamination (6 feet BGS). The 7-foot depth in Table 5-3 is accurate.

**COMMENT 52, Table 6-1**

*COMMENT SUMMARY: Lateral migration of contaminants may be a concern. Reconsider factor as applied to the vertical barrier containment response action.*

**Response:**

Some lateral migration can be expected; however, the primary migration route of contaminants in the vadose zone will be vertical. The language on Table 6-1 has been revised to state that lateral migration is less dominant than vertical migration (page 6-2).

**COMMENT 53, Page 7-2, Institutional Controls, Cost**

*COMMENT SUMMARY: Present costs in Section 7 are not tied to soil weight (as on Table 6-2).*

**Response:**

The conversion between total costs and cost per ton is provided in Section 7 and Section 8.

**COMMENT 54, Appendix A, Table A-3, International Toxicity Equivalency Calculations**

*COMMENT SUMMARY: A reference to the International Toxicity Equivalency Factors should be provided. The citation should be: North Atlantic Treaty Organization, Committee on the Challenges of Modern society, 1988. International Toxicity Equivalency Factors (I-TEF) Method of Risk Assessment for Complex Mixtures of Dioxins and Related Compounds. Report No. 176.*

**Response:**

The reference has been added to the report (page 9-2).

**COMMENT 55, Page B-14, Appendix B, Table B-2**

*COMMENT SUMMARY: 1) Incorrect table headings. 2) Data validation procedures were not adequately described, did not follow EPA guidance, and invalid data may have been used for risk assessment. 3) Level III review for all data used for risk assessment is expected. The attached tables outline validation requirements.*



**Response:**

- 1) The table heading has been corrected.
- 2) Appendix B text has been modified and some sections have been updated to clearly indicate that an appropriate level of data review and validation was performed for the OU B1 data, and the quality of the data used for risk assessment is adequately documented.
- 3) The type of review described in the tables attached to the comments was not planned when the data were collected, and will not be performed for all data. As stated in the response to U.S. EPA Comment 18, the data validation and review procedures for project data are described in the McClellan AFB QAPP, which was reviewed and accepted by U.S. EPA and other agency reviewers. The following is a brief summary of the overall QA Program and data review procedures performed for project data to demonstrate that the level of data review and validation is appropriate, and that quality is sufficiently documented to support the use of data in risk assessment and other applications.

Both QA and QC reviews are performed for project data. QA reviews include technical systems audits of field and laboratory procedures, performance evaluation samples for designated/critical analytical methods, and data quality audits of randomly selected analytical batches. The data quality audits are essentially a CLP-equivalent validation, and include the elements referenced in the attached tables. The QA reviews are used to identify systematic problems with field or analytical procedures, and corrective action recommendations are made as needed.

The QC review procedures for all data include verification of chain of custody documentation at time of sample transfer, checks for holding time compliance, verification of electronic data transfer, review of analytical batch QC and field QC results for compliance with project specifications, qualification or limitation of data as necessary based on those checks, calculation of precision and accuracy using appropriate QC results, and preparation of a data quality summary report for defined data sets (e.g., OU B data). Corrective actions may be required based on QC review. The QC review process, in addition to the QA reviews described above, provides assurance and documentation of data quality adequate to support risk assessment. The outline for the QA/QC Summary for Phase 1 of the McClellan AFB Operable Unit B Remedial Investigation is attached, and shows the level of detail addressed during the review and validation process.

**COMMENT 56, Page E-1, Appendix E, ARARs Identification**

*COMMENT SUMMARY: 1) The text should clarify that "applicable" requirements must be complied with, whereas "relevant and appropriate" requirements have some flexibility in determining whether a specific provision should be complied with. 2) The text should provide additional clarification on the enforceability of TBCs as they relate to cleanup standards.*

**Response:**

1) The text in the fifth paragraph has been revised to clarify the difference between how "applicable" and "relevant and appropriate" requirements are determined. It should be noted that text on page E-1 provides this clarification as separate discussions of the two types of requirements.

2) The word "primary" was incorrectly used to mean "enforceable." The text has been edited to replace "primary" with "enforceable (page E-4)."

**COMMENT 57, Page E-4, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The text should note that in instances where the state law is more stringent, then the state law is an ARAR. Also, clarification should be made that if a state or federal law does not regulate the specific compounds of concern but addresses more general issues, such laws would not be applicable, but would be relevant and appropriate.*

**Response:**

The text has been edited to clarify this issue (page E-4).

**COMMENT 58, Page E-5, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The text should clarify how TSCA is applied to sites with PCB releases that have occurred prior to the effective date of TSCA. The TSCA discussion does not address PCB storage requirements and liquid hazardous waste disposal issues.*

**Response:**

The text on page E-6, paragraph 4, has been edited to clarify that TSCA may not be applicable, but may be relevant and appropriate. The PCB storage requirements and PCB liquid disposal requirements are addressed in Table E-2, TSCA Treatment, Storage, and Disposal Requirements.

**COMMENT 59, Page E-11, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The text does not mention that liquid hazardous wastes, including liquids with PCB concentrations equal to or greater than 50 ppm, are regulated as California List Wastes for land disposal purposes. As such, not all PCB containing fluids are exempt from RCRA.*

**Response:**

The text has been edited to clarify that PCBs are not RCRA-listed wastes. However, text has been added to include language clarifying that liquids containing PCBs  $\geq 50$  ppm are regulated as California List Waste for purposes of land disposal. As such, these liquids must meet the LDR treatment standards prior to disposal to land (pages E-9 and E-13).

**COMMENT 60, Page E-13, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The report should explain why storage limitations are regarded as substantive requirements. The report should also mention that for off-site transportation, manifesting, use of a licensed hauler, and attaining an extremely hazardous waste permit are not ARARs, but must be complied with as a matter of state law.*

**Response:**

The text has been amended to include a description of the substantive nature of storage limitations. Also, the text has been edited to clarify that for off-site transportation, the use of a manifest and a licensed (registered) hazardous waste hauler are mandated by state law. The text on page E-13 provides the statement that for off-site shipments, an extremely hazardous (EH) permit would be required.

**COMMENT 61, Page E-14, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The anti-degradation policy is an ARAR and, accordingly must be complied with in the response action. It is EPA's position that NEPA/CEQA are not ARARs. EPA has determined those requirements are not more stringent than that required for an environmental review under CERCLA.*

**Response:**

Text on page E-16 states that the RI/FS is considered substantively equivalent to NEPA and CEQA, and that, therefore, they are not considered ARARs.

**COMMENT 62, Page E-18, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The discussion of Proposition 65 may also be unnecessary because the alternative levels set by EPA for a Superfund cleanup are adequate to satisfy the requirements of the Act (Proposition 65). This law does not impose any more stringent requirement for the remedial action at this operable unit and is not an ARAR.*

**Response:**

The text has been edited to remove the language that describes the evaluation of the applicability of Proposition 65 to the actions at OU B1 (page E-19).

**COMMENT 63, Page E-18, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The PCB Spill Clean Up Policy discussion should be modified because it has not been promulgated and therefore, is not an ARAR. However, it is a TBC and should be applied as such no matter the date of the PCB spill.*

**Response:**

The text has been edited on page E-20 to clarify these two issues.

**COMMENT 64, Page E-19, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The discussion of Standards and Criteria is very vague. The SMAQMD regulations should be considered as ARARs. Also, the RCRA incinerator requirements should be included at this time.*

**Response:**

The text has been amended to include the ARARs identified by the SMAQMD on 11 March 1993. These regulations are:

- Rule 202, New Source Review;
- Rule 401, Ringelmann Chart;
- Rule 402, Nuisance; and
- Rule 403, Fugitive Dust.

Section 1.3.3 (page E-23) has been added and describes the RCRA incinerator standards for dioxins/furans.

**COMMENT 65, Page E-20, Appendix E, ARARs Identification**

*COMMENT SUMMARY: The text incorrectly states that MCLs and nonzero MCLGs are relevant and appropriate. A correction should be made that MCLs are applicable; MCLGs may be relevant and appropriate. Clarify and expand the statement that "secondary standards" are not enforceable.*

*Text should be added clarifying that state MCLs which are more stringent than federal MCLs or which have been promulgated for substances for which there are no federal MCL are ARARs. The state's action levels should note that these requirements are TBCs. There should also be mention of the state's applied action levels.*

*Other ARARs/TBCs to be evaluated for inclusion in the report include:*

- SMAQMD Regulation 2 - Permitting - Rules 201 and 202;
- SMAQMD Regulation 4 - Asphalt - Rule 453; and

- *EPA Handbook on Remedial Action at Waste Disposal Sites (625/6/85/006) for Control of Gaseous Emissions from Landfills (as this applies to the remedial action of capping).*

**Response:**

The text in Appendix E, Sections 1.3.2 and 1.3.3, has been modified to reflect the comments on MCLs, MCLGs, and state action levels (pages E-21 and E-22). References to SMAQMD regulations have also been added to Section 1.3 (page E-21).